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SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY.

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WORK FOR SEPTEMBER.

As we have always endeavored to inculcate the doctrine, that every farmer should be ahead of his work, we indulge the hope that all Rye growers have seeded their Rye; but if there should be some who have not, they should lose no time in completing that part of their farm labors. We hope also, that all lands intended for Wheat, which may require it, have been ploughed, and are now ready to receive the seed. Indulging in these hopes, we shall proceed to point out such things as in our opinion require immediate attention

ON THE FARM.

Rye.—The proper time for getting in this grain, is during the month of *August*; but it answers to be seeded this month,—the earlier the better.

Preparation of the Ground.—It should be faithfully and deeply ploughed, and thoroughly pulverized.—Where the soil may not be fertile, or in tolerable heart, it should be assisted by manure of some kind. Indeed, we apprehend that the cause of the failure of the rye crop for so many years back, arose from the fact that it was attempted to be grown on lands in whose bosom it found such scanty fare, as to be denied the means of forming its fruit. Whatever manure may be applied, should have a few bushels of ashes and 1 of plaster per acre, or lime, added to it, which may be thoroughly mixed before being spread, or the ashes, plaster and lime sown on the surface. Rye, as well as Barley and Oats, flourish best in soils where potash is present, and hence it is, when it may be grown on old lands where it may be presumed not to exist, that it is always safest to apply a few bushels of ashes, with the view of supplying it,—where ashes are not procurable, 10 lbs. of potash, dissolved, and mixed thoroughly with the manure, will suffice for the single dressing of an acre.

Preparation of the Seed.—We would, at all times, soak the seed, but particularly so when we sowed

late, if for no other purpose, to accelerate its sprouting. We would soak it in a brine of salt and water, and, after draining that off, we would mix a sufficient quantity of ashes with the seed Rye, to coat and separate it and make it convenient to be sown.

Quantity of Seed per Acre.—As it is late to sow Rye, we would advise that at least 5 pecks per acre be sown, to allow for failure in germination, as well as winter killing.

Mode of Putting in.—We would plough the seed in three inches deep, and harrow; then run the water furrows and finish by rolling cross-wise the furrows, so as to give them a smooth surface.

Wheat.—As this is the chief money crop of a very large majority of agriculturists, too much pains cannot well be paid in putting it in; and, therefore, all possible care should be given to the preparation of the soil. It is vain to expect a large yield of wheat, unless the ground possesses those elements which enter into the composition of the plant. In all reliable analyses which have been made of the wheat plant—its kernel, as well as straw—large portions of potash, in various forms, have been found; therefore, ashes or potash are essential to its growth in every soil where it may be cultivated. So, also, is *Lime*, and where that mineral does not previously exist in the soil, it should be applied, with the view of disengaging the potash, so generally met with in clays. *Bone-dust* too, should be provided, nor would a few bushels per acre be out of place—even a single bushel would exert a healthful and salutary effect—so, also, would plaster, notwithstanding this latter mineral is held in horror as a manure for wheat by some, as we think without cause. *Marl*, which, independent of its calcareous matter, comprises within its constituent elements a very appreciable quantity of potash and phosphoric acid, will be found to be a very congenial manure, and may be relied upon whenever its application is practicable. Wheat sown upon *Clover-legs*, or in corn fields, may not require any extra manuring, be-

cause, in the first description of soils, all the elements essential to the growth and perfection of the wheat-plant and its berry, already abound, so also is it the case with corn lands which have been manured from the stables and barn-yards, as the proper salts are ever present in animal manures. In *marsh mud*, of *salt marshes*, we have, likewise, those elements which render it peculiarly adapted for the purposes of manuring wheat lands.

Guano, combines so many of the constituent elements which enter into the composition of the wheat plant, as a whole, as to render it a manure of peculiar adaptation to its wants. So well satisfied are we of its efficacy, that we would not hesitate to undertake, for a wager, to raise a large crop of wheat with it alone, even upon *exhausted clay*, or *clay mould lands*, provided, such lands were previously put in a state of fine tilth, and the ploughing had been deeply and faithfully executed; for upon such lands, its wonderful fruits are most manifest. In *Guano*, we have *uric acid*, a substance capable of being, by the process of decomposition, (always consequent upon its being submitted to the action of heat and moisture) converted into the *carbonate of ammonia*, the nutritive principle which chiefly elaborates the grain; we have also, in it, already formed, *carbonate of ammonia*, which performs, though more promptly, the same office,—besides which, *phosphoric acid*, one of the most valuable constituent elements of bones, is largely present, so also are *lime*, *magnesia*, *salts of potash* and *soda*, and *oxalic acid*, together with *carbonic* and *muratic acids*, as well as a very sensible percentage of *volatile* and *organic matter*, the which, forming as a whole, nearly all that the wheat and most other plants require to ensure their perfection.

Ploughing, Rolling and Harrowing.—All grounds which may be fallowed for wheat should be deeply ploughed, say from 6 to 8 inches, (the latter the best depth) as by turning down the clover-ley or grass-sward to that depth, the seeds of grass and weeds are placed so low that they cannot germinate, and consequently, a *clean soil* is secured for the wheat plants to occupy of themselves. Each day's ploughing should be followed the succeeding day with the *harrow*, so as to reduce all the clods to fine tilth,—where the harrow cannot effect their entire reduction, the *roller* should be freely used, as fine tilth is indispensable to success. While the operation of ploughing may be going on, the *eye of the master* must be present to prevent slovenly work being done by his hands.

Preparation of the Seed.—We are among those who believe that seed wheat should always be prepared before being sown, as we do know, from experience, that it is a *preventive of smut*. What we mean by preparation, is, that it should be *soaked* in some suitable solution, and afterwards, just before being sown, that it should be drained, and mixed with either ashes or slacked lime. Many soaks have been recommended, as *salt-brine*, of such specific gravity as will enable it to float an egg or a potato—*lime-water*, *stale-wine*, a *solution of copperas*, a *solution of salt-petre*, the *ley of wood-ashes*, a *solution of the Nitrate of Soda*, *solution of blue vitriol*, besides several others; but as *salt* is procurable by all, we think it amongst the neatest and best steepes, and equally as salutary in its effects as any other. Prior to the wheat being put into the steep, it should be washed with pure water, and then permitted to remain in the steep 12 or 24 hours, or more, before being drained. No more seed should be taken out any

one day than can be sown during that day. As taken out, and the steep drained off, it must be mixed with slacked lime or ashes, so as to separate and coat each kernel, and thus render it easy of being sown. By soaking, early germination is brought about, and an impetus imparted to the incipient stage of the growth of the plants, a thing of great value, as the earlier they become rooted the better are they prepared to resist the uprooting action of the frosts and thaws of winter and early spring.

Mode of Sowing.—All *soaked* seed wheat, should be buried at least 3 inches deep, and it matters not whether this be done with the plough, the cultivator, the drilling machine, or the harrow, the essential thing being, to give the seed a covering of at least 3 inches of soil. After the seed is in and the ground harrowed, *water-furrows* must be made to keep the plants dry through the winter, and then the field must be rolled across the furrows. There are two modes of sowing wheat, *by hand*, and *by a drilling machine*—the latter method is gaining many admirers. For an enumeration of its ascribed advantages, see page 35, of our July number.

Early Sowing.—We know that there are a great many enlightened farmers who are averse from seeding wheat early, and that their objection to so doing, arises from the fear which they entertain of injury from the Hessian fly during its autumnal visitation; but while we admit the force of this objection, we are disposed to think that the advantages which arise from early seeding more than counter-balance those which spring from the assigned reason given for late sowing. By late seeding, the fall attack of the fly may be avoided, but the exemption thus secured, we consider not equal to the benefits which are sure to result from an opposite course.—By early sowing, the wheat plant has time allowed it to throw out its roots, and thus, to a certain extent, become secured from the effects of winter-killing, as it must be admitted, that, in proportion to its opportunities of providing itself with a series of strong vigorous roots, so will its capacity be increased of resisting the uprooting influence of the alternate freezings and thawings of winter and early spring. Again, the spring finds it, from its advanced growth, better able to resist the fly, should it be subjected to an attack at that period of the year, a thing quite probable, as it makes its appearance as well then, as in the autumn, and it is a well established fact, that the more advanced the plant may be at the time of the attack, the better able is it to resist the ravages of the insect. But there is another advantage resulting from early sowing, which is forceful and should have weight. *Early sown grain*, *matures earlier*, is sooner ready to be harvested, and every one is aware, how important it is at the period of ripening to be able to anticipate the warm suns and frequent rains, only a few days, in the latter part of June and beginning of July. Though the cause of the *Rust*,—that destroying enemy of the wheat crop—is unknown, still its attacks have been noticed to follow the rains at the juncture of time to which we have alluded, and may, therefore, be presumed to be incident to the peculiar condition of the atmosphere produced by these causes,—moisture, acted upon by intense heat, superinducing an unnatural activity in the *sap*, and a consequent flow upwards of so powerful a character as to be beyond the resistance, in their then brittle state of the straw, the which, yielding to the pressure, becomes split, so that the juices which, under a more auspicious state of things would have been appropriated

to the perfection of the grain, is exuded through the cracks, and thus not only abstracted, but becoming oxidized by the atmosphere, it may be, is the cause of the disease. For these reasons we would commence seeding on the 15th of the month.

Quantity of Seed per Acre.—If sown broadcast 2 bushels of seed is necessary—if drilled in by a machine, 5 pecks is ample—so that, in a field of 100 acres 75 bushels of seed will be saved.

Selection of Seed.—As like will produce like, good seed should be sown.

Seeding Timothy.—If you have not sown your timothy seed, do so as early as possible this month—and with the view of getting a good stand, sow 9 quarts of seed to the acre; be sure that the seed is good and fresh; and as a protection to the young plants, sow also at the same time a peck of buckwheat, per acre. For particular directions as to the preparation of the ground, see our July number, pages 33 and 34.

Granaries, Barn and Cow Houses.—Give these a thorough cleansing with lye, and then white-wash them inside and out.

Getting-out Grain.—Go on with the threshing out your grain, bearing the following advice of the Hon. Wm. Carmichael, in mind, as a more observant farmer, or reliable source is not to be found:

"Weevil Fly and Black Weevil.—The weevil fly deposits its eggs in the grain, in its green and tender state. If the wheat is threshed soon after harvest, and thrown into bulk, it undergoes a heat, which destroys the egg, and it sustains no injury; but if it remains long in the shock or stack, the weevil hatches, and makes its way out of the grain, to its great injury, both in weight and quality."

"The Black Weevil haunts our granaries, where they are generated. Some years ago I suffered much injury from them, but have now an *effectual defence*. When my granaries are clear of grain, I place powdered brimstone in an earthen pan, which, for safety, I put on the floor in a bed of sand, closing doors and windows, and I fire it. The smoke either destroys or drives them off."

Meadows.—Such meadows as may have fallen off, may have their product increased, by having sowed thereon, say 5 bushels of ashes and 10 bushels of lime to the acre, provided you broadcast thereon say 6 lbs. of timothy seed to the acre, harrow and then roll it in.

Ditching and Draining.—All wet lands should be ditched and drained—by such processes, their productive capacity will be enhanced fully one-third in quantity, while the quality of the grain, or grass grown thereon will be vastly improved in quality. See the article headed—"Advantages of draining wet clay lands."

Corn Tops and Blades.—See that these are secured in good time.

Accumulation of materials for making Manure.—Set apart the services of a man, a horse and cart, from this time till winter in the collection of materials to make manure. Recollect that *marsh mud, peat, marl, weeds, leaves, mould, the mud from the heads of creeks and rivers, the scrapings from the roads, headlands, fence corners and fence sides, pine shavings* and all other kindred substances, if collected and hauled into the cow yards and hog pens, and spread on their bottoms, will, by next spring, be converted into first rate manure, and thus may the provident farmer provide himself, at trifling expense with an ample supply of manure of the most enriching quality; for in such a compound mixture, every possible ingre-

dient essential to the food of plants may be found. Let no man be frightened by the *apparent* labor, for if undertaken with a willing mind, it will be trifling, while the means of improving the land it would ensure, would prove of incalculable value, not only for the present, but in the future, for it would lay the groundwork of permanent improvement. Such materials should be so spread, in a dish-like form, as to prevent the enriching properties of the mass, as it might become decomposed, from being washed away by the rains.

Orchards.—If there be any dead limbs on your fruit trees, have them carefully sawed off into the sound wood, smooth the surface with a drawing knife, and then apply to the face of the wound one or two coats of the following mixture: Melt 2 lbs. of Rosin, 1 lb. of Beeswax, and 1 lb. of Turpentine over a slow fire, when melted and mixed, apply it warm with a painter's brush. If the bark of your trees are rough or mossy, scrape either off, and paint the bodies with a mixture made in the proportion of 1 gallon of soft soap to 1 lb. of flour of sulphur and 1 pint of salt.

Hogs.—Put a portion of your hogs into a pen, give them the materials to work with, and our word for it, 10 hogs will manufacture a load of dirt into manure every ten days.

Milch Cows and Heifers.—If these were not served last month, let them be gratified this, and be sure in your selection of a bull, if possible, to let him be a *Durham, Devon, Ayrshire or Hereford*—thus, at small expense, you will be able to improve the quality of your stock. It is time that old field bulls were consigned to the butcher.

Fences.—Examine these *yourselves*, and have every panel, needing it, thoroughly repaired. Don't fence your stock out, but fence them in, in order that they may not trespass upon your neighbors.

Care of Stock.—Every farmer should have his stock so provided with enclosed pastures, as that they cannot trespass upon the fields of his neighbors—and he should see that they receive salt at least twice a week. Salt when given to stock in proper quantities, and at proper times, gives energy to the stomach, strengthens the capacity of the digestive organs, increases the appetite, and as a resulting consequence, improves their general health and condition. And where the pastures are not supplied with water, the owner should make a moral duty to have his stock watered at least three times a day.

Out Houses.—These should be examined, repaired, and whitewashed; so also should the cellars of dwellings.

Stables.—The floors of the stables, where the horses may be confined, should be kept clean, and measures taken to absorb and save the urine as it may be voided. To prevent the escape of the volatile portions of it, plaster should be daily spread over that part of the floor where it falls.

Turnips and other Roots.—Have your crop of turnips and other roots thinned out to proper distances and thoroughly weeded. For turnips, we have found the *harrow* a most serviceable implement in the first working, just after the bulb began to bottle or swell. It saves labor and does the work effectually.

In conclusion, we tender our sincerest wishes that you and yours may enjoy health, happiness and prosperity, and that Providence, in his mercy, may so still the agitations of the world, as to render profitably available those toils and anxieties, which you have so patiently endured, in the furtherance of your agricultural operations.

TRANSACTIONS OF THE NEW YORK STATE AGRICULTURAL SOCIETY.

We owe many thanks to B. P. Johnson, Esq., Corresponding Secretary of the New York State Agricultural Society, for a copy of the above truly valuable publication. It is filled with matter of the deepest interest to the agriculturists of our country—almost every page is marked with the power of intellect, whilst many of the papers it contains are written with an ability rarely to be met with in works of the kind—the well established facts it comprises, connected with the economy and management of farms, and the cultivation of various crops, are truly interesting, and the more so, as they relate to almost every thing grown by the farmer, and are as well adapted to one part of the country as to another. Amongst the papers to which we allude are several *Addresses* by gentlemen of distinguished celebrity, which bear the impress of great research, profound thought, and a most happy application of theories and principles to practice, whilst in one of them, that of Dr. Stevens, we find some new views full of interest. We shall avail ourself of such of these papers as we think will prove acceptable to our readers, in successive numbers of our journal, and would transcribe from it now freely, but that our columns were occupied when we received a copy of the book. We cannot, however, resist the temptation of translating to our pages one of the reports. Its novelty and the source whence it sprung, commends it to our heart,—we publish it, because, we have long thought, that like committees should be organized in every agricultural association in our country—for who can be so capable to decide upon the merits of *woman's work* as *woman* herself? Among the proceedings of the Washington County, (N. Y.) Agricultural Society, we find the following.

REPORT OF LADIES COMMITTEE.

"It is with great reluctance that the committee of Ladies present their report in person, as it has been said by some ladies—whose judgment upon other subjects we highly appreciate—that to do so, was a departure from the strict rule of propriety, which ought to govern the lady. But inasmuch as many of us are the *wives* and *daughters* of farmers of good plain common sense, and having been assured by them that we are exactly in the path of duty, (as it added to the interest of the meeting,) we have ventured to come before you, to read a report drawn up in much haste, and with many imperfections.

Our autumn sun is shining clear,
The falling leaf is red and sear,
October's chilling wintry blast,
Reminds us that summer's past;
But we have many proofs this day,
That the year has not been thrown away,
By the husband, wife, daughter and son,
In the good county of Washington.

In number and beauty the articles presented for examination, are highly creditable to the ladies of the county, especially when we remember the meagre pittance that is before them as a motive. We speak not this reproachfully, for we all know well that the society is poor, and that in its desire to re-

ward industry and ingenuity, it is sometimes more generous than its means will warrant. Oh that the time might be near at hand, when every farmer and citizen would feel so much interest in the farmer's festival, as to feel it a *privilege* to pay in their dollar, whether they have any thing to present or not. Then we could put in the place of our *lonely* dollar *five* or *ten*. This would awaken energies that now lie dormant, and bring to light many a talent now buried and lost to the world. As it is at present, all can see that the love of money cannot be the motive of any lady who presents her work, and we readily assign none other than a *desire to be usefully employed*.

A meritorious premium of a Volume of Transactions is awarded to Miss Mary Mills for presenting the greatest number of pieces of useful and ornamental needle work. The productions of this young lady, proves most conclusively, that the useful and ornamental can be usefully united; that the making of butter, with other household cares, does not necessarily make one less susceptible of the beauty of the fine arts; but by industry and perseverance, both may be carried on with profit and pleasure.

And now we beg leave to differ with the false prophets who have said, that this would be the last fair held in Washington County, for we are happy to say, in the ladies' department was exhibited full proof that there has been felt an increasing interest in this festival day of the farmers, for *woman has come up as she should do, with the work of her own hands, to testify to the dignity of labor*.

In conclusion we would for a moment glance at the benefits of this association, as the promotion of industry and good feeling.

OCCUPATION—*labor*—is the law of man's condition. From the garden of Eden, was it first promulgated that toil was the means by which he should subsist,—in the sweat of thy brow shalt thou eat thy bread,—and by this wise and gracious ordination, *Occupation* is not only our duty as a means of livelihood, but our interest as a source of happiness. This organization is calculated to promote industry, by assembling in honorable companionship and uniting in a common enterprise, those who are engaged in the various active duties and pursuits of life—and the granting of premiums and tokens of merit in useful as well as ornamental achievements, serves not only to impress the public mind with the dignity and importance of labor, but to encourage *occupation* and effectually to exclude those evils, which are the result of too much leisure, or of unprincipled idleness.

Respectfully submitted,

A. C. HOLMES,

In behalf of the Ladies Committee.

Among the most valuable articles, we notice one by Professor JOHNSON, of England, "*On the Economical Use of Bones as a Manure, and on their Solution in Sulphuric Acid.*"

Our horticultural readers are, perhaps, even more fully aware than most farmers of the value of bones. *Phosphate of lime* is so essential an organic constituent in the *pear*, and some other fruit trees, that no good orchardist or gardener will henceforth be guilty of the extravagance of *wasting bones*.

The difficulty, however, hitherto experienced by many persons, has been to bring the bones, easily collected upon every farm and about every slaughter house, to a fit condition for applying to the land. Bone mills are only to be found here and there; and in some parts of the country, the cost of transporta-

tion of bone-dust has been so considerable as to put a stop to its use. Fortunately, this difficulty has been overcome lately by a cheap, simple, and rapid mode of dissolving bones by sulphuric acid, now largely employed by English agriculturists. The mode of effecting this is so important to nine-tenths of our readers, that we extract the formula from Professor JOHNSTON'S essay:

METHODS ADOPTED FOR INCREASING THE SENSIBLE EFFECT OF BONES.

Without referring much to the effect which bones might theoretically be expected to produce, it has been observed by practical men that they may be made to act more quickly and more beneficially by the adoption of certain previous precautions, such as,

1. *Reducing them to fine powder.*—I have already alluded to the fact ascertained by experience, that the finer the powder, the more immediate and the more sensible the effect of bones. But practical men were afraid to venture too far in diminishing the weight of manure, added to the soil. Bulk was considered to enter as an element into the fertilizing capabilities of any substance. Many leases even prohibit the addition of less than 16 or 20 bushels of bones, when used alone in raising turnips. But under the guidance of science, both tenants and proprietors will, by and by, learn to estimate more correctly what the crops really carry off, and what the soil therefore requires. Thus a strictly scientific economy will be established, and no more of anything will be added to his fields than the farmer knows and understands to be necessary to maintain them in a state of permanent fertility.

2. *Heating the bones.* In some districts their action in hastening forward the young turnip, and bringing it quickly into rough leaf, where it is safe from the attacks of the fly, is increased by laying the bones in a heap, and covering them over with earth, for a week or ten days before they are drilled into the land. Left in this state, they heat, soften, and begin to change or decompose; and thus, when laid in the drills near the seed, they are ready to furnish nourishment to the young plant as soon as the roots first thrust themselves downwards from the sprouting seed.

3. *Fermenting them with dung,* or the same decomposition is effected and carried further by mixing the bones with farm yard manure, and leaving the mixture awhile to ferment. It was the result of trials made by thirteen different persons, and which are recorded in the Doncaster report, that a given weight of bones, when mixed and fermented with farm yard manure, invariably produced a more beneficial effect, than the same weight of dry-bone dust, applied to the same crop and upon the same soil.

The advantage which results from these several methods, arises from the effects which they produce, either in diminishing the mechanical coherence of the particles of the bone, or in altering by incipient decomposition, the chemical state of the organic matter it contains. None of them, however, sufficiently effect these objects, though I do not doubt that fine bone-dust, fermented for two or three months with farm-yard manure, and occasionally turned over, would be brought into a condition more nearly approaching to guano, in its fertilizing virtue, than any other form of bones which has hitherto been generally employed.

DECOMPOSING AND DISSOLVING BONES BY MEANS OF SULPHURIC ACID.

But another mode of preparing bones has recently

been introduced, and for two or three years has been extensively employed as a part of the ordinary husbandry, especially by some of the Scottish farmers. This mode consists in decomposing, and more or less dissolving bones in sulphuric acid, (oil of vitriol).—This may be done in various ways, and the prepared bones may either be applied in a liquid state with a watering cart, or may be dried and sowed with a drilling machine, or broad cast, like ordinary bone or rape dust.

a. The bones in the form of bone dust, or where bone mills are not at hand, simply broken in pieces with a hammer, may be put into a cast iron, stone, earthen-ware, or strong wooden vessel, mixed with half their weight of boiling water, and then with half their weight of the strong oil of vitriol of the shops, stirring constantly while the latter is slowly poured in. A powerful boiling up takes place which gradually subsides.

By occasional stirring, the whole assumes the appearance of a thick paste, the pieces of bone gradually disappear, and after a week or ten days the whole may be taken out and mixed with a little charcoal powder, charred peat, saw dust or fine dry earth, to make it dry enough to pass through the drill, and may thus be immediately applied to the land. It would, however, be better to prepare the bones at least a month before using them, and lay them up in a heap for a while, with a view to their more perfect decomposition. When the pieces of bone are large, this is especially desirable, as otherwise they will not be fully decomposed without a larger addition both of water and acid.

b. Or the acid and bones as above, may, after a couple of days, be mixed with a quantity of light, friable soil, and laid up into a heap for seven or eight weeks with occasional turning. The bones thus heated, decompose and dry up, so as to be ready for putting into the drills without farther preparation. This method, however, requires more acid, and it is not unusual, in employing it, to take equal weights of acid and bones. It may be, some practical men, indeed, employ invariably equal weights of acid and bones, while others are satisfied by mixing the bones with one-third or even one-fourth of their weight of acid. I would myself employ not less than a half.

c. Or equal weights of bones in the form of dust, of boiling water and of acid* may be mixed together and occasionally stirred for a week or ten days, and when the particles of bone have nearly disappeared, from 50 to 100 times more water may be added to the mixture, and the liquid thus diluted may be applied by a water cart. If it is to be used upon grass land in the spring, or to young corn, it will be safer to dilute it with 200 waters, but fifty waters (by weight) will be enough if it is to be applied to turnip drills. A common watering cart used for other liquid manures, will serve for the former purpose—for applying it to the drills a very ingenious addition of tubes to this cart has been contrived by Mr. Wagstaff and employed by him under the direction of the Duke of Richmond at Gordon castle.

This method of applying the bones in the liquid form, is, no doubt the most perfect, but it is also the most troublesome and expensive, and may not, therefore, come so soon into general use, though it may ultimately prove the most profitable.

Instead of sulphuric acid, the muriatic acid or

*A gallon of water weighs 10 lbs., a gallon of acid 17 or 18 lbs.

spirits of salt, has been, indeed, was first, tried for the dissolution of bones, but the former appears at present, for several reasons, to be preferred.

We will add to the foregoing, that a number of experiments with dissolved bones were made by the Highland Society of Scotland, the result of which were :

"1. That four, and in some cases, even two bushels of dissolved bones, will produce as good a crop of turnips as sixteen or twenty bushels applied in the usual form, [dry bone-dust]. The crops also start more quickly, and grow more rapidly.

"2. That the more complete the state of solution or subdivision of the bones, the greater the effect. Hence, when applied in the liquid state, the benefit is most apparent."

The Horticulturist remarks: Those who cultivate heavy compact soils, have no doubt been quite disappointed in the want of effect of bone manure upon such soils, compared with their admirable action on lighter and more porous soils. Professor Johnston has suggested, in the following paragraphs, the cause of this want of action on heavy soils, and the remedy :

10. OUGHT ANY OTHER SUBSTANCES TO BE MIXED WITH THE DISSOLVED BONES?

Bones are known to exercise a comparatively feeble and uncertain action upon stiff and undrained clays, and it may, therefore, be reasonably asked by some if the action of dissolved bones will be more certain upon such soils than the bones in their natural state? We may, I think, answer this in the affirmative, since the principal cause of the less conspicuous effect of bones upon such soils is to be found in their tenacity and coldness, by which the particles of bones are shut out from the air, and their decomposition is retarded.

But, inasmuch as bones do not contain the whole of the substances which plants require, and as some of those which are present in bones, the salts of soda, for example, are in small quantity only, it may be reasonably asked again if the dissolved bones would not be improved, and their efficacy increased, and rendered more sure, were an addition of certain substances to be made to them. Of this I think there can be little doubt, though the necessity and nature of such additions will depend much upon the nature of the soil to which they are to be applied. A small per centage of pearl ash or wood ashes, of nitrate of soda, or common salt, and a sulphate of magnesia—5 lbs. each of the potash and soda salts, and 10 lbs. of the magnesia salt to each 100 lbs. of bones—would render the mixture more suited to every soil and crop. At the same time, if the soil like those formed from the felspar rocks abound in potash, or like those which border the sea, be rich in soda, or like those which owe their origin to the slates, or to magnesian limestones, contain already too much magnesia, any addition to these several substances would obviously be thrown away. The principle of adding such things being recognized as sound, the knowledge and discretion of the farmer must be exercised in determining how far such additions are likely to be profitable, or to make a small preliminary experiment by way of trial.

There is considerable horticultural information also collected in this volume. The committee on fruits, who gave last year a list of select apples, which they recommended for general cultivation in N. York have this year continued their labors by

presenting select lists of other fruits, with descriptions and figures of the same, copied from Downing's work on *Fruits*. We annex a list of the sorts recommended by them, that our readers may see what varieties are most popular in the northern portion of that State.

Pears.—Madeleine, Bloodgood, Dearborn's Seedling, Bartlett, Fondante d'Automme, Seckel, White Doyenne, Swan's Orange, Louise Bonne de Jersey, Stevens' Genesee, Beurre Bosc, Gray Doyenne, Washington, Beurre d'Arenberg, Winter Nelis, Glout Moreau, Vice of Winkfield.

Plums.—Jefferson, Green Gage, Washington, Huling's Superb, Schenectady Catherine, Bleecker's Gage, Lawrence's Favorite, Columbia, Prince's Imperial Gage, Coe's Golden Drop, Prune d'Agen, Peach Plumb, Denniston's Albany Beauty, Denniston's Red.

Peaches.—Early Tillotson, Grosse Mignonne, Cooledge's Favorite, Red Rarieripe, Royal George, Crawford's Early, Malta, George 4th, Brevort, Morris' White Rarieripe.

Cherries.—May Duke, Elton, Florence, Black Tartarian.

Strauberreries.—Hovey's Seedling, Large Early Scarlet, Swainstone Seedling.

Grapes.—Isabella and Catawba.

A winter apple, called the "Wagener Apple," has received a premium from the society, and is recommended for cultivation, as a variety "remarkable for its agreeable taste and flavor." It originated near Penn Yan, Yates county, N. Y.

The following able paper originally appeared in the "South Carolinian," and was forwarded to us for publication in the pages of the "*American Farmer*," by a correspondent at the South. We feel much pleasure in presenting it to our readers, being satisfied that the facts therein set forth, will be found extremely valuable at the present time, when such an enquiring spirit is abroad in regard to the subjects treated by the writer.

SUGGESTIONS AS TO THE SUCCESSIVE CULTIVATION OF COTTON AND INDIAN CORN.—ROTATION OF CROPS, &c.

BY THOMAS J. SUMMER.

My attention was directed, to the necessity of a correct understanding, respecting the constituents of these two important crops, by the Planters of South Carolina, from reading Boussingault's Analysis of Indian Corn, and I hope to show scientific causes, sufficient to render this necessity apparent to interested readers. I will commence by merely calling their attention to the amount of Phosphoric acid, abstracted from an acre of fertile land, in producing one bale of Cotton. We take it for granted, that an acre will yield one bale of Cotton, which will give 875 pounds of Cotton seed, which, according to my Analysis, recently finished, and sent you by last Steamer, will yield 35 pounds of ashes—these 35 pounds of ashes, contain 12 pounds of Phosphoric acid, 10 of Potash and common Salt, while the remaining parts are composed of Lime, Magnesia, &c. The most common application of Cotton seed as manure, has been on the small grain crops, for which they are admirably adapted—containing as they do, all the constituents necessary for the nourishment of these

crops. It seldom occurs that wheat is planted after Cotton, consequently the soil which produced the Cotton seed does not receive them again, and we have 12 pounds of Phosphoric acid, taken directly from this soil, which will, probably, not be sown in wheat, till the following season, perchance, it may receive the seed grown upon it. It is customary after Cotton, to cultivate a crop of Indian Corn, which is followed by small grain, in what has heretofore been the Planter's system of Rotation. We see thus, two crops which are the most powerful exhausters, taken from the soil before we return directly, any of the constituents taken away in the form of Cotton seed. To show, conclusively, the injudicious and impoverishing practice of cultivating Cotton, and Indian Corn, as successive crops, I will cite the analysis of M. Boussingault, who says that 100 pounds of the ashes of grain of Indian Corn, contain 50 pounds of Phosphoric Acid. Now, suppose, that one acre planted in this crop, will yield 30 bushels—which will be equivalent to 1350 pounds of Corn. If these 1350 pounds of grain, be reduced to ashes, we have a fraction over 97 pounds, which contain 50 pounds of Phosphoric Acid, and 30 pounds of Soda and Potash—making for the production of the two crops of Cotton and Corn, the enormous amount of 62 pounds of Phosphoric Acid, and 40 pounds of common Salt and Potash. Then, suppose, the third year, we sow wheat after corn.—This crop requires about the same constituents, as does the Cotton crop. If we return to the soil the usual quantity of Cotton seed devoted to this crop, we give it back, only one-fifth part of the Phosphoric acid, &c., which was taken from it in cultivating the two preceding crops. When such are the facts, what reliance can be placed in the generally received and popular practice of cultivating Corn, immediately after Cotton? How long has it been argued, that such a system of rotation was beneficial to the soil? The reverse is the fact, for, in harvesting 1350 pounds of Corn, we take a fraction over four times as much Phosphoric acid, than we do in producing one bale of Cotton. The three crops most extensively cultivated in South Carolina, are those which consume the most valuable constituents of the earth in their production, and our Planters should at once be awakened to the necessity of remedying the evils, resulting from incorrect systems of culture, before it is too late. The first step, is to adopt a better system of manuring, and by the institution of economy in saving, preserve to the crops much that is lost to them, by reason of the non-application, or the more general want of knowledge, respecting the availability of many substances found on the farm.

As the greatest quantity of these constituents are found in animal bones, the easiest method of restoring them, would be to carefully collect all these, and make them subservient to the wants of these crops by converting them into powder or ashes. Bones, contain an immense amount of Phosphoric Acid. My far famed preceptor, that world renowned chemist, LEIBIG, says, that a single pound of bone dust, contains as much Phosphoric acid, as one hundred pounds of wheat. From this we can easily perceive, that there are bones wasted on every farm in the State sufficient to manure the entire wheat crop. This, to many, will doubtless appear strange, but, it is nevertheless, true, and if we do not arouse ourselves to a better system of farming, we will find our State in less than fifty years, in a more deplorable state of impoverishment than were the outworn lands of our sister State of Virginia, before the industrious farmers, who are now working such miracles on them, took hold of

them for improvement. The first colonists of Virginia found a soil similar to our own. Abundant harvests of Wheat, Corn and Tobacco, were obtained from one and the same field, for near a century without the aid of manure. But nature exhausted, at last refused to repay the laborious toil of the husbandman, and whole districts, were suddenly converted into arid and unfruitful pasture lands, which, without manure, will now produce, neither Wheat nor Tobacco, and the desolation of which, is only heightened, by the miserable herds and flocks, which find a scanty summer subsistence on these bleak wastes. This is not strange, when we state, that in the production of the standard crops, in the space of one hundred years, there was removed from every acre, fully 12,000 lbs. of alkali in leaves, grain and straw. It necessarily became unfruitful, because, that small portion, which during each succeeding year, was rendered soluble, was not sufficient to satisfy the natural demands of the plants. With such an example, why shall not South Carolina make the attempt to preserve her already impoverished fields from a similar fate? We possess over her, many advantages, and still in many parts, aided by science and industry, she is renewing the bare bosom of mother earth, by a deep covering of mellow artificial soil, which sustains the rich gifts of Ceres. We possess, as a peculiar advantage over the Virginian farmer, a larger amount of forest to supply leaves and litter, to be converted by a little pains-taking into good manure; and, secondly, the amount of the constituents of the soil, exported in our Cotton, does not come in the same fearful ratio, as they do in the Virginia products—small grain and tobacco. This is truly an important advantage; as we consume the Cotton seed and small grain on our farms, very little is exported, and consequently, these self-same constituents are obtained again, in the voidure of such animals as are sustained on them, and their constituents are re-delivered to the soil, in the shape of manure, in as large quantities as they were originally taken from it, and when combined with vegetable substances, in the shape of composts, even in larger quantities, the application of which, results in the speedy and certain improvement of the land. But, to all these means, the farmer in South Carolina, where extent of acres is not measured by price, has a third means of remedying the evil of an improper succession of crops. This is fully demonstrated by LEIBIG, in the example which he cites in his Agricultural chemistry, of the condition of the country around Naples, which is famed for its fruitful Corn land. The humblest villages are situated from eighteen to twenty-four miles distant from each other, and between them there are no roads, and consequently, no means for transporting manure to any distance from the residence of the laborers.—Now Corn has been grown on these lands for thousands of years, without any portion of the constituents which have been annually removed from the soil being artificially restored to it. The method of culture, however, satisfactorily explains the cause of this wonderful and permanent fertility—and though the system appears a very bad one in the eyes of our Agriculturists, it is, nevertheless, the very best that could be adopted. A field is only placed under tillage once in three years, and in the intervening two years furnishes a sparse pasturage for Cattle and Sheep. The soil undergoes no actual change in these two years, during which it thus lies fallow, farther than being exposed to the influence of the atmosphere, a fresh portion of the alkali contained in it are again set free, and rendered soluble. The a-

mount of constituents in two years, thus placed by nature at the disposal of the crop of one season, being generally greater than the crop demands, this patient system of rotation without alternation, has preserved the fertility of the soil. It may appear to those who do not reflect, that the droppings of the animals pastured on the land might have an improving effect, but this is not the fact, for they yield the soil nothing which they did not drain from it. The grass and weeds, upon which they live, spring from the soil, and that which they return in voidings, must according to the laws sustaining animated nature, be less in quantity than the amount originally derived by them. The fields, therefore, under this system of grazing can gain nothing; on the contrary, the soil must have lost some of its constituents. Experience, as in Virginia, has shown that Wheat should not follow Wheat, or Tobacco a crop of Tobacco; for these are crops which speedily exhaust the constituents of the soil. If we take these constituents from the soil, we should return them before we again tax it to ruinous production, by artificial manuring, with such manures as would most readily and cheaply effect the object; or, if this cannot be done, why, there is still a sufficiency of land unoccupied, untilled, and lying waste on every plantation to allow it to lie at least one year fallow. Why do not our planters do these things, and preserve the rising generation from raising the cry of "Westward Ho!" A country like South Carolina, possessing a climate suited to nearly all the cultivated crops, deserves to be fostered and improved. The present age must make the beginning, else we will entail the horrid curse of national poverty upon those who follow us. With the proper energies, and the application of the proper principles to her Agriculture, we can make her the garden spot of the world—and such she should be. When I return home, I intend to devote myself to analyzing every cultivated crop of South Carolina, and will feel sufficiently rewarded, if my labors only produce the result of stimulating the beginning of a reformation in the Agriculture of my native and beloved State.

UNIVERSITY OF GIESSEN, }
Germany, April 16th, 1848. }

STEEPING SEED GRAIN.

To the Editor of the American Farmer.

SIR:—There is a custom very generally accredited as philosophical and much practiced by the better farmers, which as I infer, from the data I shall give, has no foundation in science or in fact. I refer to the practice of steeping seed grain in saturated solutions of different salts, for the purpose of protecting the young plant against the depredations of destructive insects, to increase its growth, or to protect it against the diseases to which it is incident. I have devoted a good deal of attention to the question, made experiments myself, (repeating those I have seen stated in agricultural journals,) and observed the experiments of others, and have never seen any application to seed grain, in the form of soaks, of the least appreciable advantage, with the exception, that grain thus steeped will vegetate sooner than it would if sown dry, owing to the water absorbed in the steeping process.

It is unnecessary for me to trouble you or your readers with a sheet or two, describing my experiments; they are as simple as planting two hills of corn or wheat, side by side, the one soaked in a saturated solution of the salt used for the experiment,

and the other in aqua pura, and to note the results, which any one can do without overtaxing his patience. Let us examine its claims to philosophical character, and see if it will harmonise with known principles of vegetable physiology. Suppose we take saltpetre, (potassæ nitrat) a salt much used for this purpose. The first thing that will puzzle a tyro in examining the literature, (as found in agricultural journals) relative to the utility of the salt, used as a steep for seed grain, is the great number of designs in its application. One farmer will design to protect his wheat from the Hessian fly by soaking his seed wheat in it. (a) Another will assign as a reason for his application of it, that it secures his wheat against the smut; (b) a third regards it as a sure prophylactic against rust, &c. (c) and a fourth farmer will swear that his crop is doubled, if not trebled, by the application of this steep to his seed grain. This contrariety of sentiment relative to its modus operandi, is a strong argument, at once, against its operation at all. The farmer who soaks his wheat to protect it against the fly, must believe that the fly or its larvæ is in the seed grain at the time he soaks it, or believe that the nitre absorbed by the seed grain will be conveyed into its growing plant, and that it will there prove a defence against this insect, either by destroying it or proving offensive to it. To the first part of the proposition we object, because it is uncontestedly established that the fly at no time occupies the grain as its nidus, but is at first deposited on the wheat leaf, (or the rather its egg is,) is there incubated and makes its way to the crown or root of the plant, and from there into the stalk, consequently the steep can be of no use with this design. Even admitting that the fly is imbedded in the seed grain at the time it is steeped, and that nitre is deleterious to it, what proof have we that the grain absorbs a sufficient quantity to destroy it? This point settled, let us see if the plant derives a protective virtue from the nitre absorbed by its seed grain. We may assume with much certainty that the grain does not absorb more than 1-100 part of its weight of nitre, and also assume that at the time the fly deposits its ova (if in the spring) the weight of the plant exceeds that of the seed grain 50 times. Now, admit that the small quantity of nitre absorbed by the seed grain is all present in the plant at this time, the quantity must necessarily be so relatively small as to be imperceptible to the most delicate test, and consequently be of no use as designed. But a growing plant does not feed from its seed; it feeds from the earth and from the atmosphere. (d) The functions of the seed is to furnish the vital principle, and having performed this office, it may be removed, and the plant go on to its maturity separated from it. Examine the seed thus removed, and the nitre it contained when deposited in the earth will be in it still. Examine the plant, and no traces of the nitre is found, although the most delicate test a farmer can command, is applied.

The same observations will apply (mutatis mutandis) to its application as a prophylactic against the diseases of smut, rust, &c. Medicine which the patient never takes can be of no benefit to him, however specific it may be in itself. But we do not even know that this article is a specific against these diseases in wheat; if we did, our chances of successful application would be greatly increased by applying our remedy to the soil, where the roots feed, instead of to the seed grain, a point from which the roots make directly away. There is also some attention to be paid to the quantity; a barrel of corn may

make a perceptible impression on a pig, but one grain of corn will not. Nothing appears to me more absurd than the supposition that the nitre absorbed by a grain of corn, perhaps 1-50th part of a grain avoidupois, will make the stalk arising from the grain produce thrice the usual yield.

Seeing the assertion in the "Farmer's Library," by Major B—, that this nitre steep had trebled his yield of corn, I repeated the experiment, by his recipe, on a small scale, but saw no result from the nitre. I have, at different times, repeated experiments made with other salts, stated to be as efficacious as this nitre, all with the same results—no benefit. It is known that certain substances will accelerate the growth and increase the yield of certain kinds of grain, but they are always applied in perceptible quantities, either to the surface, to attract moisture, (as plaster,) or within reach of the roots for them to feed upon, never with any benefit to the seed grain, (water excepted) from which the roots and the plant both make directly away.

Respectfully, AN E. S. MAN.
Churchhill, July 5, 1848.

Notes by the Editor of the American Farmer.

(a.) This is the first time we have ever heard any such reason given for the use of a mineral soak.

(b.) There is no question that any saline soak will prevent smut.

(c.) We have now for the first time learned that any *soak* was a preventive against *rust*, that being a disease produced by causes which operate *only* at the period of ripening, and being, we apprehend, of atmospheric origin.

(d.) This proposition is only *relatively* true. So long as the seed is undergoing decomposition, so long does it furnish food for the plant, and so long does the plant take up that food. No one, we apprehend, competent to reason at all, ever did presume, that the small portions of nutriment and salts comprised in a grain of wheat or corn, *was competent, of themselves, to effectuate reproduction*, and, therefore, we think any argument based upon such an assumption, is gratuitous. The benefits of all *soaks* operate thus—by destroying fungus, and by exciting early germination,—farther than this, we apprehend no sensible man ever laid claim—that they possess these properties, *we know* from experience. We have, by washing *smutty* seed wheat in a solution of common salt and water, removed the smut from the seed, and grown a clean crop of wheat therefrom. That these soaks promote early germination is admitted by the writer, and we are sure that his good sense will induce him to admit, also, that even *that* is a great point gained, and that however small the quantity of salts imbibed by the seed while in the soak, it is sufficient to give the plant an *impetus* in the incipient stage of its growth, which is another very important point gained—and herein consists the advantages of all soaks—and is, we suspect, all that their advocates ever intended to claim for them.

Never profess what you do not practice.

For the American Farmer.

COL. CAPRON'S SYSTEM OF FARMING—
HIS DURHAMS AND DEVONS, &c.

BY A VALLEY OF VIRGINIA FARMER.

I was much pleased to see in your July No. an account of your visit to Col. Capron's establishment. I had the pleasure of enjoying his hospitality one day last winter, and was highly gratified—judging by comparison with that adjoining, and separated only by a fence, the improvement of his land is extraordinary, and shows the skill and energy of the farmers—here the old, as well as the young farmer, would receive valuable information in the business, both from observation and conversation—every department shows management, system, order, and would, even without explanation from the hospitable host, forcibly strike the visitor, but the Colonel takes pleasure in explaining every thing to his guest.

I once heard a good farmer say, "he always gained more information by visiting a bad than a good farmer, for there he could see the defects"—this was true to a certain extent—but here he could see the good effects by comparison; I saw the fine wheat you mention—can you not induce the Colonel to ascertain accurately its yield per acre? I could not avoid wishing some of our best farmers in the valley of Virginia could examine our host's farming operations, also his barn and stables, where everything has a place, and more, everything was in its place—but while wishing thus, the thought of being so far excelled in farming was soothed by that feeling of admiration of one's own country so happily planted by Divine Wisdom in man's bosom, and I could not help thinking that if Col. Capron could bring such land as his was to yield a crop of 35, 40 or 50 bushels of wheat to the acre, what could not his skill and judgment bring our naturally good (but I admit, badly farmed) limestone lands to yield. I feel convinced, Mr. Editor, that this section of country cannot follow the Col's plan. Our milk, cream and butter will not bear transportation to Baltimore, or ashes from that city—therefore, having no market for such, our farming must be different—give up grazing, keep only a sufficiency of stock to furnish our families with an abundance for our use and the farm with working animals—converting all we can into manure, in this way following, though in an humble degree, Col. Capron's plan, and make up the deficiency as far as possible by permitting our surplus clover to lie, shade and decompose on the ground instead of permitting our fields to be kept bare by grazing.

Some things struck me that seems to have escaped you, in the arrangement of his stables, dairy, &c.—The dairy is in a basement story adjoining the cow stable—the milker pours the milk into a funnel in the stable which is conducted by pipes into the dairy, being economy both in time and labor.

His stables are somewhat elevated above the manure yard—his animals of all descriptions were bedded with an abundance of straw—which is regularly cleaned out into the manure yard and their stables so constructed with drains as to convey all their urine with it—this, with the facilities of obtaining all the ashes, as well as lime and plaster from Baltimore and Washington, places it in the power of Col. Capron to cover his farm most abundantly with manure of the best quality—and who, that knows him, does not know that he will avail himself of every advantage to improvement. I think it was remarked that his spacious manure was piled and emptied frequently in the year.

I come now to a subject that I wish to call the public attention, as well as Capron's to—blooded stock—It is better for a farmer generally to have (in comparison to his means of keep) only a few, but of the best quality; indeed having them of the best quality of blood, enables him to keep a greater number to a much greater profit. In all kinds of animals there are families of equal purity of blood, of far different qualities—instance the blooded horse—some families being, with but few exceptions, all race horses through generations, while other families with equal purity of blood have the exceptions the other way—so rarely bringing a racer as to cause him (though first rate), to be ranked as a chance race horse—such a horse, judgment would not select to breed from—the truly safe plan for a judicious breeder is not to breed from a horse whose dam has not produced more race horses than one—so with cattle—some families produce with rare exceptions superior milkers—others with equal purity of blood and better looking, rarely produce a single good milker; and farmers too frequently looking to the appearance without informing themselves as to the properties the families on both sides are in the habit of bringing, fail in the milking property and unjustly condemn the breed, when in fact the error lies in their want of consideration.

Col. Capron owns the improved short horns and Devon cattle in their purity and distinct—and from inquiries, I conclude he has most judiciously, and at great cost and trouble procured his cattle from the best milking families—I hope and trust he will continue this principle and not mix the two breeds (for both are preferred for their purity by different breeders.) I know of no person more capable of attending to this, or of carrying it out more correctly, and he will, I trust, receive from it an amply remunerating profit—nothing is more needed in the United States than an establishment where the nation can look with certainty for animals to improve their stock in the qualities needed—and if Col. Capron will attend strictly to this—he will be as much a farmer's benefactor in that branch, as he is in the instruction given farmers by the improvement of land, shown by his judicious farming.

July 27th, 1848.

IMPROVEMENT IN THE SYSTEM OF NORTHAMPTON CO., VA.

To the Editor of the American Farmer.

In the July No. of the Farmer, you published an interesting account of the system of farming as practiced in Northampton Co., Va. A very minute account of the same county we well remember also to have read in Mr. Ruffin's Register, and upon the facts laid before me in these two articles, I proceed to offer to our friends there some comments upon their farming.

I might, perhaps, shrink from condemning at the very outset their short-sighted and scourging system, were I not confirmed in my views by the results they themselves offer to my inspection and by every principle of agriculture, that modern science has developed, and ancient and modern practice confirmed. I could, indeed, multiply examples within the knowledge of every clover-farmer in the United States to prove to them, that where any small grain follows corn the yield is not on an average more than one half of that when it follows clover. On our best wheat lands the yield in the former case will not average eight bushels, while in the latter, it will

equal eighteen bushels per acre. Were the rotation such as to exhibit the effects, there is every reason to conclude that corn would show the same if not a greater difference of yield, if made to follow oats or wheat instead as it commonly does of succeeding clover. From whence comes this difference, but from the fact, that the two plants requiring the same food from the land must have an intermediate crop of a different family, taking different sustenance and giving time for preparation by nature of another supply of aliment required by the small grain? Can there be anything in the climate, constituent elements, or position of this land, to cause it to be an exception to those results that follow such practice, in all other parts of the world, as invariably as night succeeds day? I have heard several reasons suggested for the fact that it does not deteriorate. One is the salt air. A large portion of the globe is washed by the ocean, but we have never heard elsewhere of this magical influence. Beneficial it undoubtedly is: for sea weeds are chiefly valuable on account of the presence of the sea salts. But if all the salts in the Chesapeake were collected and applied to a single field, the corn and oats would still demand other kinds of salts that are never found in sea water. The Magotha bay bean is also believed to be greatly beneficial in keeping up these lands. We have seen this plant in its perfection; it springs up after the oats are cut, and does undoubtedly assist in shading the land and gives some little vegetable matter; but in these respects as well as its deficiency in root, we doubt if ten crops turned in would benefit land as much as one of clover. A much more probable cause than all these, however, as tending to the support of the land, is doubtless to be found in those admirable qualities of industry in the farmers, as described by "Northampton." They must have necessarily much time to devote to the collection of manure, and the introduction of labor-saving machines of modern invention will very much increase their ability in that way. But all these causes combined fail to present sufficient explanations why land thus cultivated should not deteriorate, and I am constrained therefore to doubt the "fact." And, indeed, no one who reads Northampton's account but must, it seems to me, also doubt. Land was, I presume, on the first settlement here, as elsewhere, held in large bodies by single individuals. The inhabitants "are not inclined to emigrate." Hence property must have become much subdivided, more manure is made and the land altogether better cultivated. But here we have the result of these modern advantages, two barrels per acre! Will not recently cleared land, which must be taken as a measure of the fertility of the soil, produce more? Will not even old fields taken up after rest and grazing for twenty years do better than this? The aggregate yield of the county may be greater, because, I presume, land is cleared every year, but how does the product from each farm compare in ten years? And why should land on the Eastern shore of Maryland produce 12, 15, and even 18 barrels per acre, and that on the Eastern shore of Virginia only two? Surely not from the natural difference in the soil; for from the fact that this land will now after fifty years of such abuse produce anything, I cannot but believe it is naturally of very fine quality. Besides I have heard Hill Carter, "the best farmer in Virginia," quoted as expressing a very high opinion of its fertility. The error must then be in the difference of treatment. I have thus boldly found fault with the practice of the farmers in Northampton, and they may now reasonably ask

me for a better system. It is far easier to point out from results and general principles the existence of gross errors, than to offer a plan that will prove unexceptionable. But from the tenor of my remarks it may have been already perceived, that I strenuously recommend the introduction of clover in their rotation. If their lands can be made to bring clover, let them not be deterred by the report of the experiment having been once tried, even under such good management as that alluded to by "Northampton." It is but an experience against many millions, all over the globe, of the invaluable effects of that cheapest and quickest of all manures, a good clover fallow.

The advantages and comforts of a system of farming in which clover forms part of the rotation need scarcely indeed at this day be dwelt upon,—no one who has seen its remarkable effects upon his land would ever be willing to give it up at any cost of seed. But I must remember that this heavy coating of manure is put upon the land with no labor in preparing the ground, and no labor of collecting or hauling it out; that it affords nourishment for stock of the most valuable kind; thus allowing us considerably to increase our profits from butter, beef, mutton, and to increase our manure. For one cow well fed will not only be worth half a dozen half-starved, but her manure will also be valuable just in proportion to the quality and quantity of her food. That therefore the land when solely in clover so far from being lost is probably the most valuable part of the farm. For if it be moderately grazed after the clover is in full bloom the second year, and then the cattle taken off and the seed saved from the second crop, we will, besides the improvement and the home comforts have a selling crop more valuable than oats and scarcely less so than corn.

But that I have already exceeded my limits, I would proceed to combat by figures the idea that is prevalent, as I am well aware, that delay in profits and much outlay attend the introduction of the thirding (clover) system. I reserve this discussion for a future number. Z.

The foregoing sensible communication came to hand too late to avail ourself of its contents in our August number. We publish it now for its merit, and hope its author will continue the interesting discussion which he promises.—ED. AM. FARMER.

FLORENCE WHEAT.

ALDIE, LOUDON CO., VA., AUG. 9.

To the Editor of the American Farmer :

Dear Sir,—In the last number of the Farmer, you make mention of a wheat raised by Col. Belt, and called Monument Wheat, which differs so materially from a new variety which I have obtained from the same source, as to cause me no little surprise. I send you enclosed a few grains of my wheat, which I call the Florence Wheat, from Greenhow's statue having been made in that city. Its history is as follows: When Greenhow's statue of Washington was unpacked in the rotunda of the Capitol, Mr. James D. Waller, assisted by some of the other guards of the building, collected about half a gill of Wheat from among the straw with which the statue was packed, and brought it to my grandfather, Major Wm. Noland, then Commissioner of Public Buildings. My grandfather carefully sowed and preserved it, and upon his leasing out his farm three years ago let me have the wheat, which had

increased to three pecks. I sowed it, but the hogs got into it and injured it so much that I only was able to save about a bushel, which I then sowed and got twelve. Last fall I sowed the twelve bushels on a piece of corn ground, and hope I have made one hundred and fifty, having not yet threshed it out. As far as my observation of this wheat goes, I consider it superior to anything with which I am acquainted. It is a white-flint wheat with a smooth head and a purple straw, and weighed last year sixty four lbs. to the bushel. It is a wheat of an extremely vigorous growth; grows from ten to twelve inches higher than any other kind which we have, and I believe it to be equally fly proof with the Mediterranean, having never been injured, whilst other kinds of wheat in the same field have been much injured by the fly. I think this variety is a valuable acquisition, and hope to be able next year to supply a number of gentlemen who may desire it with seed. Should I have an opportunity, I will send you on some of the wheat and some of the heads, and will also deposit some of it in the Patent Office.

Yours, very respectfully,

EDMUND BERKELEY.

P.S. This wheat was sowed in October after the balance of my wheat was sowed. It was, however, about the first that ripened, and produced at least five bushels to the acre more than the other wheat in the field.

Remarks by the Editor.

We were so fortunate as to have preserved the head of wheat sent us by Col. Belt, as described in p. 50 of our August number, and on comparing the grains with those sent us by Mr. Berkeley, we find the former a line larger and longer, while the color has so far improved since we received the head, as to be entitled to be called White Wheat, it being only the veriest shade darker than that raised by Mr. B. As both were taken out of the straw with which Greenhow's statue of Washington was packed, there must have been two kinds, as while that of Mr. Berkeley's is smooth headed, that of Col. Belt's is bearded. Both are excellent—most excellent—varieties, and will, we have little doubt, prove to be great acquisitions to our country.

Mr. Berkeley's specimen is among the most beautiful White Wheat we have ever seen—it is fair and as plump as a squab, and heavy withal.

LIME AND ASHES.

To the Editor of the American Farmer :

Mr. Editor:—The "Farmer" in its monthly visits is always a welcome guest. It never fails to give me amusement and instruction. It is gratifying to see that you have so many contributors, not only able but willing and zealous, in the cause of agriculture. No cause is better entitled to the support which talents and virtue can bestow, and I trust that the time is not distant when agriculture will assume the dignity and station which belong to her. Whether her improvements are effected by the "high pressure" system, or by the equally sure but more slow process, it is still onward. In alluding to the various means of improving lands, your correspondents never fail to speak of those two powerful agents—lime and ashes. I have always been taught to regard them as similar in their character, and that the value of

the ashes consisted in the lime which they contain. The ashes spoken of are no doubt *dripped* ashes, which, by that process, have been deprived of the potash, leaving the lime still in combination. Mr. Ruffin in his work on "Calcareous Manures," puts very little value on ashes applied to lands which have been made calcareous by lime or marl. Several other writers take the same view of the subject. Now, to me it is a matter of personal interest, and would no doubt be of interest to others, to have the question solved—whether there is any *peculiar* virtue in ashes over lime, or whether the use of lime will not supersede the use of ashes. If a farmer has his land limed, would it not be to his interest to apply vegetable and putrescent manures in preference to ashes, at the same price per acre? I find myself precisely in that condition, and it is now a question whether my land could be most improved by the expenditure of a given sum in ashes or in stable manure? My land has been marled several years ago—grows clover finely, and my local situation enables me to procure other manures, but seeing no clear and definite allusion to the subject by any of your practical writers, I am at some loss about that kind which will most promote my object. Some of your practical agriculturists could no doubt solve the difficulty. I want experience—hard facts,—theory has already decided the question with me, if there is truth in chemistry, but I had rather rely on facts, for they are incontrovertible.

Before another season rolls around I shall wish to procure the most approved thrashing machine. My attention has been directed to the "Endless Chain," so much noticed in your paper, but I have not the means of selecting the best variety, nor have I any skill in mechanics; I shall therefore at a suitable time seek your aid in making a proper choice. I should be glad to hear what some of your most skillful farmers say in relation to that particular variety of machine. I was at Mr. C. B. Calvert's a few years ago and saw one of that kind thrown out of his barn, which I considered a bad omen, and yet subsequent opinions, as far as they have been expressed, are in their favor. If I possibly can I shall be at your fair early in November, when I may be able to make a selection.

Very respectfully,

W. J. DUPUY.

Petersburg, Va., August 9th, 1848.

REPLY BY THE EDITOR AMERICAN FARMER.

We believe that when lime or marl may have been applied to land, that the application of vegetable and putrescent manures will answer without ashes, although there are many valuable substances contained in the latter which are not to be found in either lime or marl.

Our correspondent asks for *facts* connected with the application of *ashes*, and we would, therefore, be much indebted to any of our readers who may have used them to favor us with papers detailing the results of their experience in their use.

By reference to Vol. 3, pages 212, 213, 250, 309, 313 and 380, our correspondent will find much valuable matter, in relation to their constituent elements, as well as the benefits resulting from their application.

At our Fair in Nov. he will have an excellent opportunity of making a selection of a thrashing machine.

CAROLINE CO., MD.—THE POTATO ROT.

DENTON, July 20, 1848.

To the Editor of the American Farmer :

DEAR SIR:—I am sorry that I cannot send you a number of subscribers from our county, as the poorness and bad tillage of the land in this neighborhood, is an evidence that your excellent work is not perused—I am frank to say, that it was *circumstances* that threw your Farmer in my way; first having received it in exchange for "Stewart's Journal"—but when I was once acquainted with its value, I can assure you that I shall never be without it.—I wish circumstances would throw it in the way of all farmers, if they will not take it otherwise. We have a kind soil here, and with attention and perseverance, it might be made to produce Indian corn, potatoes, oats, and all of the grains except wheat, as abundantly as any land in the State. On the borders of the Choptank, the land is high and sandy, and in this region, the potato rot, which is so much talked about, is *not known*—I have lived here nearly three years and never have seen an Irish potato affected with the above malady—the rot is not known here—may it not be owing to the high, sandy, dry soil? I am inclined to think that wetness is the cause of the rot. I raised last year about two hundred bushels, and I never saw one affected—this year I shall make near five hundred bushels, and as yet I see nothing the matter with them. I plant all my potatoes early—about the last of March—and let them remain in the ground till the fall.

Last year I cultivated five acres in corn, and desiring to get the same in clover, about the first of August, I seeded it in clover, and I never saw finer than it is any where—the corn shaded it from the heat of the sun, and by frost it was six inches high.

THOMAS R. STEWART.

FAIRS.

The American Institute.—The twenty-first annual fair and exhibition of this noble institution, will commence on the 3d of October next, at Castle Garden in the city of New York.

The Franklin Institute.—The Fair will be held in Philadelphia, commencing on the 17th October, and continue until the 28th.

New York State Agricultural Society.—The eighth annual fair of this Association is to be held this year at Buffalo, New York. It will open its meeting on the 5th of September, and close on the 7th.

The Maryland Institute.—The first exhibition of this Institute will be held in the city of Baltimore, commencing on the 31st October. The Cattle Show and Fair will take place on the 9th and 10th November. We hope we may be able to vie with New York on this occasion. The Tribune noticing the Annual Fair of the American Institute, makes the following appropriate comments:

"Within a day's ride of our city there is now a population of some four or five millions, on the whole the most active, ingenious, intelligent and inventive of any five millions on the face of the globe; and this Fair is the annual landmark of their improvement in nearly all branches of Productive Industry. Here the Artist, the Artisan, the Mechanic, the Inventor, the Machinist, the Farmer, Dairyman, Gardener, Horticulturist, &c. &c. meet once a year on common ground, each to scrutinize the other's progress during the last twelve months, and see whether any improvement made by any other may be made

available in his avocation. No man can spend a week in careful, pains-taking observation at the Fair and not return to his business more capable, more apt, more fertile in resources upon any emergency. The youth who is permitted to study the Fair to his satisfaction must go away more thoroughly impressed with the true dignity and worth of Productive Industry, and more determined to win honor and competence thereby. Every apprentice and youthful artisan of our city ought to have at least one day at each of these Fairs, and not merely be permitted but encouraged so to spend it. Probably by this course some happy idea would be elicited, some combination of forces effected, which would result in lasting benefit to the country and mankind.

Beside the usual premiums for the best products in the various departments of Agriculture, Horticulture, Arts, Mechanics, &c. &c.—amounting to many hundreds—there will at this Fair be awarded \$500 in premiums to Apprentices and Minors for the choicest products of their industry during the past year—they competing solely with each other, and experienced workmen. The products of youth of either sex are entitled to compete for these premiums. Ample precautions will be taken against frauds and deceptions.

Mr. Van Schaick gives \$100 in premiums for best American Silks. Gen. Tallmadge a Gold Medal for the best piece of American Linen. R. L. Pell \$60 for the best Fat Ox, weighing not less than 3,000 lbs. M. H. Chase for the best Fat Sheep, weighing not less than 200 lbs. dressed, \$50. Shepherd Knapp for the best Farm Cart, \$25, and a Jerseymen a like amount for the best essay on Linen. There are Gold Medals, Silver Medals, Cups, &c. for best Farms, Gardens, pieces of Broadcloth, Cassimere, &c. (from American Wool exclusively); also for best Working Oxen, Horses, Cows, Mules, &c. &c."

MONTGOMERY COUNTY AGRICULTURAL SOCIETY.—The Executive Committee have appointed the following gentlemen on the following Committees for the next Annual Exhibition, to be held in Rockville, on the second Thursday of September, to wit:

Committee of Reception of Domestic Manufactures.—Dr. Chas. A. Harding, William Braddock, and Dr. Stephen Bailey.

Committee of Arrangements.—John W. Spates, H. B. Cashell, Julius West, John T. Desellum, and Lawrence A. Dawson.

Committee on Improvement of Farms.—Wm. Brown, Horatio Trundell, and Joseph T. Bailey.

Committee on Horses.—Dr. B. I. Perry, G. M. Watkins, Thos. Worthington, F. P. Blair, and Wm. G. Robertson.

Committee on Cattle.—Geo. E. Brooke, J. W. Magruder, Jas. Brown, Nathan S. White, and Dr. Wm. Palmer.

Committee on Sheep.—Nathan C. Dickinson, E. J. Hall, B. W. Waters, and S. M. Lyddane.

Committee on Swine.—John H. King, Thomas N. Wilson, Lewis Shots, and Wm. Musser.

Committee on Butter.—Thomas Blagden, Joshua Pierce, Geo. Knowles, Dr. S. Bailey, and Hazel B. Cashell.

Committee on Fruit and Vegetables.—Robt. Y. Brent, Thos. I. Bowie, Artemus Newlan, Dr. W. Waters, and Mr. Britt.

Committee on Household Manufactures.—H. Bradley, A. E. Soper, Samuel Blunt, Samuel C. Veirs, and Leonard W. Candler.

All persons desiring to compete for premiums for

articles of Household Manufactures, must present those articles to the Committee of Reception by 12 o'clock on Wednesday preceding the day of the Exhibition.

All Committees are empowered to fill vacancies.

ADDITIONAL PREMIUMS.—A Silver Goblet of the value of \$10 will be offered as a premium for the highest improvement of a lot of land not less than two acres. The several competitors to give satisfactory evidence to the Committee of the quality, or productive capacity of the land before the improvement was commenced, and of the kind, quality and cost of the artificial means employed; and, that the premium be awarded to the lot, the productiveness of which has been most increased at the least expense. And, that a Silver Goblet, of the value of \$5, be awarded to the second best lot.

For the best display of Agricultural implements, \$20.

For the best Stallion, \$10.

For the best Bull, \$10.

For the best Yoke of Oxen, \$10.

The competition is left open to all persons bringing stock reared in any part of the County.

THE AGRICULTURAL CONVENTION.

The Executive Committee of the *Montgomery Co. Agricultural Society*, at a recent session, on motion of

A. B. DAVIS, Esq. adopted the following resolution:

Resolved, That the members of this Committee, heartily approve the suggestion in the last number of the *American Farmer*, for a State Agricultural Convention, to be held in Baltimore, on the 5th of September next, and that we do hereby appoint, A. B. Davis, Otho Magruder, Zachariah Waters, Geo. W. Dawson, Robert Dick and Wm. H. Farquhar, delegates to said Convention, with full power to represent this Society therein.

The officers of the *Prince George's Co. Agricultural Society*, at a late meeting, appointed the following gentlemen delegates to the convention, viz:

W. W. W. Bowie, Charles B. Calvert, Horace Capron, Robert Bowie, Wm. D. Bowie, Wm. H. Tuck, Richard S. Hill, Thomas Duckett, John H. Bayne, John D. Bowling, Thomas Blagden, James Somervell, James A. Iglehart, Washington Calvert, Samuel H. Dorsett, Thomas S. Iglehart, James S. Owens, John H. Somervell, H. C. Scott, Wm. N. Dorsett, Thomas F. Bowie, Chas. C. Hill, Thomas Fawcett, John S. Sellman and George Forbes.

At a meeting of the Board of Managers of the Maryland Institute for the promotion of the Mechanic Arts, the following delegates to the Agricultural Convention were appointed, viz: Saml. Sands, Joseph K. Stapleton, Edward Needles, Adam Denmead and Amos Gore. Delegates to the Fair of the American Institute, to be held in New York on the 3d October: Adam Denmead, B. S. Benson, W. Peters, Thos. Trimble, Isaac Brown, Washington Page, James Murray, Samson Cariss, C. W. Bentley, A. Gore, George R. Dodge.

Geo. D. COAD, Esq., agreeably to appointment, delivered an Address before the Agricultural Society of St. Mary's Co. at the meeting of the Society, on the 8th ult. The Leonardtown Beacon says, that "the Court room was quite crowded on the occasion, and the address was listened to throughout with much interest and attention. It was, as we had predicted

it would be, an able effort in behalf of the Agricultural cause; and it affords us much pleasure to announce, and we are sure the public will be highly gratified to learn, that a copy of it has been obtained by the Society for publication."

At the meeting of the St. Mary's Agricultural Society on the 8th ult. the following resolution was adopted:

Resolved, That a committee of five be appointed by the Chair to report on Thursday next in relation to the best method of procuring a supply of Guano for fall use; whereupon, the Chair appointed Edmund J. Plowden, George D. Coad, William H. Thomas, Dr. Thomas Matthews and Dr. Walter H. Briscoe, to compose said committee.

CATTLE SHOW AND FAIR.

The Marlboro' Gazette, noticing the Fair and Cattle Show to be held in this city in November, says:

"We concur with the Baltimore Sun in saying, that it is gratifying to observe the earnest movements now making in Maryland to elevate agriculture, in the minds of all, to that high position which a rational intelligence demonstrates is its desert. To a much greater extent more north has this desirable aim been attained than here, and no means have contributed more largely to its accomplishment than those now proposed in Maryland for the same purpose. Agriculture being the only true source of wealth, and an ennobling independent profession withal, should at least meet with due appreciation in a republic."

The Winchester Virginian, upon the same subject, remarks:

"We should much like to see some of the splendid Devon Cattle to be found in the counties around Baltimore transferred to our own region. They are said to be far better adapted to such land as forms the average of upper Frederick, Shenandoah and Hampshire, than any of the other improved breeds. We recollect seeing, two years since, in Montgomery county, a herd of twelve or fourteen, certainly the most beautiful of their species we have ever met with. Their soft and glossy skins, of a deep red, their delicate limbs and heads, and quick and intelligent eye, distinguished them from the heavy and sluggish Durham as much as from the rugged native ox. They will thrive on pastures where the Short Horns will starve, and are infinitely superior to them as well as all other breeds, under the yoke.

Their walk is almost as quick as that of the horse, and with something of his alacrity they combine the patience and steadiness of the ordinary ox. Among the various herds in this country, the venerable editor of the Farmer's Library, mentions with peculiar favor that of Major Patterson, near Sykesville, Carroll county, Maryland."

If our friend of the Virginian will favor us with his presence at the contemplated Cattle Show in November, we think we can promise him a sight of the beautiful Devons, to which he alludes—a finer herd is not to be found in this country, and probably Europe does not contain a match for it.

CHARLES CO. AGRICULTURAL SOCIETY.

A meeting of the Charles County Agricultural Society was held on Thursday last, the 20th inst. The meeting was called to order by the President.

The proceedings of the last meeting having been read, the Corresponding Secretary stated, that he had notified the Hon. JOHN G. CHAPMAN of his appointment to deliver an address before the first annual meeting of this Society, and that Mr. C. had accepted the appointment.

The Corresponding Secretary stated also, that he had received a Circular from the Commissioner of Patents, a copy of which he presented to the Society, requesting certain information in regard to the agricultural products of the county.

WALTER MITCHELL, Esq., offered the following resolution:

Resolved, That the communication of the Commissioner of Patents be referred to a Special Committee consisting of five members, whose duty it shall be to collect such information as is required in said communication, and report the same to this Society at their October meeting.

On motion of JAMES FERGUSON, Esq., the Chair was authorized to appoint said committee. The following named gentlemen were appointed: George P. Jenkins, James F. Neale, F. B. F. Burgess, John F. Gardiner and James Fergusson, Esq's.

On motion of Col. JENIFER, the Treasurer was authorized to call upon the members of the Society, by advertisement, for the amount of their subscriptions.

RICHARD BARNES, Esq., offered the following preamble and resolution, which was adopted:

Whereas, much of the success in agricultural life depends upon the industrious and judicious application of the principles of agriculture as a science,

Resolved, That as one of the surest and most effectual modes of disseminating a knowledge of those principles, and as a proof of the high estimation in which those Journals are held by this Society, the "AMERICAN FARMER" and "SOUTHERN PLANTER," be cordially recommended to this Society and to the agriculturists of this county generally.

The following is the Circular from the Commissioner of Patents, referred to in the above proceedings:

PATENT OFFICE, JULY, 1848.

Sir: In reply to the Circular of Queries annexed. I am desirous to obtain the estimated per centage of increase or decrease of crops of this current year, as compared with those of the year 1847. Should you be unable to form the estimates and transmit the replies requested, will you do me the favor to hand this Circular to some one who may be able and willing to furnish me the desired information.

Among other useful topics on which to collect information are the following:

Names and date of formation of the county or township Agricultural Society, Farmers' Club, if any, Presidents and Secretary, with P. O. address.

Number of members, amount paid for premiums, funds, &c.

Names, date of formation, number of members, funds, amount of premiums, &c., of other Industrial Associations.

State of the weather at the planting season, while growing, and at harvest; and when practicable, the mean temperature for the months, and amount of rain which fell.

Prevalence of blight or insects, probable per centage of loss by them, &c.

Cost per bushel of raising Wheat, Indian Corn, &c.

Probable average consumption per individual of Wheat, &c., Indian Corn, Potatoes, Beef, &c.

Please to send to me the various returns by mail as early as the 1st of December next.

Any valuable seeds, also, will be very acceptable for distribution at this office.

Respectfully, yours, &c.

EDMUND BURKE,
Commissioner of Patents.

INORGANIC ELEMENTS OF NUTRITION.

All the world over, there are certain elements called inorganic, ten in number, which enter into the composition of every fertile soil, viz: potash, soda, lime, magnesia, alumina, oxide of iron, phosphoric acid, sulphuric acid, chlorine, and silica, and in some soils an additional inorganic element is found in minute proportion, called manganese.

The most abundant of these elements is silica, constituting, in different soils, from one-fourth to more than three fourths of their entire weight. Of this element the common flint is a specimen. In its pure state it is perfectly insoluble in water. In combination with other bodies, however, as potash, or soda, for instance, it loses its insoluble character, and becomes food for the growing plant. In the straw of the various kinds of grain, this element greatly predominates over every other, and indeed over all others. In that of wheat it constitutes sixty-five parts in a hundred. It is this which imparts stiffness to the straw, and enables it to maintain its upright position. Those plants which are unable to stand upright, as the pea, the potato, and other vines, are found to contain a very small proportion of silica. And Professor Norton, of Yale College, analyzed some straw of oats which grew upon a field on which no kind of grain was able to maintain its upright position, and found a very great deficiency of this element. It is as a silicate of potash, or silica in combination with potash, (the same combination which forms glass) that produces this effect. It is this which gives to the straw its glazed appearance. So abundant is this element, in almost all soils, that it very seldom becomes necessary to supply it by artificial means.

The straw is also found to contain potash, about one-eighth, lime about one-sixteenth, sulphuric acid in nearly the same proportion, magnesia about one-twenty-fifth, phosphoric acid about one-thirty-fourth, and chlorine, oxide of iron, and soda, in minute proportions.

In the kernel of the different kinds of grain, on the other hand, but little more than a trace of the element which so greatly predominates in the straw, (silica,) is to be found. The predominating element in the kernel is phosphoric acid, constituting about one-half of its entire composition. And the reason of this difference is seen in the fact, that in building up the animal system there is little use for silica, whereas phosphoric acid comes largely into requisition. In combination with lime, it constitutes about one-half of the substance of the bones. It is this which imparts solidity and hardness to bones. It can be dissolved out of them, leaving the residue a soft, pliable, elastic substance. Phosphoric acid, as well as sulphuric acid, also enters, to a considerable extent, into the composition of the brain.

A kernel of wheat consists also of potash about one-fourth, magnesia about one-eighth, soda about one-eleventh, lime about one-thirty-fourth, and a small proportion of sulphuric acid, oxide of iron, and silica.

These elements in the soil, derive their origin from the gradual crumbling away and decomposition of the rocks, which form the crust of the globe. And the peculiar properties of different soils, are found to correspond with those of the rocks from which they are derived. The process of decomposition through the action of air and moisture, must, of course, be slow, but yet, sufficient, in the lapse of ages, to produce immense results. The process may be accelerated, and indeed rendered in many cases almost instantaneous, by means of artificial appliances. And these elements, as they exist in the soil, in a state of disintegration, or decomposition, may be re-combined in their due proportions, and again take the form of solid rock. It is but recently that we announced the fact that Mr. Pepper, of Albany, had taken out a patent for forming a rock from a composition of alumina, silica, &c., which is harder and more enduring than the hardest marble, upon which nothing but the diamond can make the slightest impression.

These inorganic elements, (elements of mineral origin) constitute about nine-tenths of the soil. If we leave out the silica, the remaining inorganic elements constitute but about one-fifth part of the soil. The elements then which are liable to become exhausted, and need to be supplied by special manures, constitute but a small proportion of the aggregate of the soil, and several of these elements exist in very minute proportions. And yet, in their due proportion they are as essential to the growth of the plant, as those which exist in the greatest proportion.

We see then the reason why a very small quantity of some mineral often produces such wonderful results. Sixty pounds of plaster, (sulphate of lime) will often produce a ton and a half or two tons more of hay to the acre, than could have been produced without its application. And similar results are obtained from the application of other elements, in equally small proportion. And how is it, that so large returns are gained from so small an application that the result is so disproportioned to the means employed? Plainly, upon the principle, that, for lack of this single element, all the other elements were rendered comparatively unavailable. These elements existed in the soil, and were within reach of the roots of the growing plant, previous to the application of the deficient one, in as great abundance as afterwards, but without the aid of that single one, they could not form those combinations, which are essential to the building up of the living structure.

We also see the reason why the application of these deficient elements is often regarded as very exhausting to the land. For a few years most luxuriant crops will follow the application of plaster or lime, and then the soil refuses to make its accustomed returns, and is apparently, and in fact, smitten with barrenness. And what is the cause? Simply, that while one deficient element has been supplied, some other element has been exhausted by the immense crops consequent upon the application of the deficient one. In the application of a deficient element then, care should be taken, lest to supply the luxuriant crops which follow, some other element should be exhausted.

We see the reason, too, why the application of certain elements, produces such wonderful effects upon some soils, and no effect at all upon others. They would of course produce no effect at all upon soils in which they already existed in sufficient quantity.—*Michigan Farmer.*

THE AMERICAN FARMER.

BALTIMORE: SEPTEMBER 1, 1848.

TERMS: \$1 per annum, in advance—6 copies for \$5—13 copies for \$10—30 copies for \$20.

Address SAMUEL SANDS, Publisher,
2 Jarvis' Building, North-st., Baltimore, Md.

MARYLAND FARMERS' CLUB.

A meeting of the Club will take place at the Hall of the Maryland Institute for the Promotion of the Mechanic Arts, over the Post Office, on TUESDAY, the 5th day of September next, at 10 o'clock, A. M. for the purpose of uniting with the Delegates from the several Clubs and Associations of the State in making the necessary arrangements for holding a CATTLE SHOW AND FAIR on the 9th and 10th November next, agreeably to the suggestions of the Board of Managers of the Maryland Institute. As the subject is one of great importance to the Agriculturists of the State, it is hoped a very general attendance will be given.

By Order of

JOHN GLENN, President.

SAMUEL SANDS, Rec. Secretary.

The Agricultural Convention.

It will be seen by notices on another page, that Delegates have been appointed by several associations, to meet in Convention in this city ON THE 5TH SEPTEMBER INST. to take into consideration various subjects of interest to the Agricultural community, and to make arrangements for the holding of a CATTLE SHOW AND FAIR, in the early part of November next. We trust that Delegations will be in attendance from every Club or Society in the State, and that from every section where there is no association, neighborhoods will depute representatives to meet the Convention. The plan has been highly approved wherever the subject has been presented, and we trust that the true spirit of patriotism will be in the ascendant on the occasion.

It is time that the agricultural community should take measures to protect their interests, as from long neglect, though numbering three-fourths of the entire population of the country they have less weight in State and National councils than almost any other class. We say to them—the time for action has arrived. Whilst millions are expended yearly for the promotion of other interests, nothing has been done to improve the condition of those engaged in agriculture.

THE PRIZE ESSAYS.

The liberal Premiums which have been offered by the publisher of the "Farmer," for the three best Essays on the subject of the Renovation of Worn-out Lands, has attracted considerable attention throughout those sections of country in which our journal mostly circulates, and we flatter ourselves that the best talents will have been elicited in competition for the honors. We have received the annexed let-

ters from gentlemen who were selected to examine the essays, who are to meet in this city on the 4th inst. The essays are required to be in the hands of the Publisher, prior thereto.

FROM JUDGE CHAMBERS, OF MARYLAND.

CHESTERTOWN, August 1, 1848.

Dear Sir:—Yours of the 25th ultimo, accompanied by the July number of the Farmer, is at hand. I concur with you in the belief that no subject is more important to the agricultural community than the one proposed for your liberal premiums. I cannot but believe the migration of our people would be in a great degree arrested, if a general conviction could prevail as to the facility of renovating our long neglected and now exhausted lands, and their value (regarding the vicinity of market) compared with Western lands—to say nothing of other vital considerations, such as acceptable places of worship, colleges, schools, &c. &c.

I shall of course be gratified to render any aid toward the accomplishment of so good a work—please enroll my name on your list of subscribers, as an evidence of good will.

I am flattered by having my name placed amongst the distinguished gentlemen selected as a committee, but fear my health, which has been deranged for some months, will not enable me to be an efficient member—certainly I must decline the position you have given me if by being first named you had any idea of my acting as chairman. If I can act at all it must be where a just sense of propriety, as well as inclination, would locate me—as one of the humblest of the list.

Very respectfully, yours,

E. F. CHAMBERS.

Samuel Sands, Esq.

FROM JUDGE DORSEY, OF MARYLAND.

MOUNT HERRON, August 3, 1848.

Dear Sir:—I have delayed answering your favor of the 25th ult. in hopes of being able to make some arrangement, by which I could be able to comply with your wish, but I find it impossible; my official and other indispensable engagements are such, as to put it wholly out of my power to discharge the duty you have assigned me. In reluctantly declining the compliment you have paid me, I am gratified in knowing that there will be no difficulty in selecting another, more competent than I am to fill the station allotted to me.

Very respectfully, your ob't serv't,

THOS. B. DORSEY.

Samuel Sands, Esq.

FROM GEN. RICHARDSON, OF VA.

RICHMOND July 29, 1848.

SIR:—I have just received your favour of the 25th, and will with pleasure attend your appointment, unless prevented by some unexpected occurrence, of which, if it happen, you shall be apprised in time. In that case, if it be desirable to have a substitute from Virginia, permit me to recommend Chas. Jas. Faulkner, Esq. of Martinsburg, Berkely Co., a gentleman far better qualified for the service than I am, and one of the most enlightened, ardent and liberal friends of the cause. The large additions to your subscription list afford gratifying evidence of that general awakening of the cultivators of the soil, to their true interests, so indispensable to success.—

Would that the paper could be in the hands of every one of them! No more important or interesting subject to the people of Maryland and Virginia can engage your attention, I believe, than the renovation of their exhausted lands,—it is of vital importance to both. There can be no doubt of its practicability, and at less expense of money, toil and life, than is encountered by thousands and tens of thousands of the people of both States, who abandon the place of their nativity, for the doubtful and often unsuccessful chance of better fortune in the far west. These very worn out lands, to the eye of practical science, and the hand of steady industry, present a field for successful enterprise and encouragement, far preferable to emigration, and I sincerely believe and hope that the measures you propose will give a new direction to the efforts of all our people, who desire to improve their circumstances, but have not yet thought of any other than the emigrant's road to the goal.

I will communicate with the President of the Agricultural Society here in regard to sending a Delegate to your proposed Convention on the 5th Sept. This society through the inactivity of the present Executive Committee, has been suffered to languish very much, although the city of Richmond will always give the funds to sustain it, if active agents could be had to attend to its concerns.

I write in much haste,

And am, very respectfully yours,
WM. H. RICHARDSON.

FROM THE HON. WILLOUGHBY NEWTON,
OF VIRGINIA.

LINDEN, August 19, 1848.

My Dear Sir:—I received your friendly letter calling my attention to the fact that I had been appointed by you one of the judges of your prize essays. I could not have received a more honorable appointment. I have postponed answering your letter until I could ascertain with some degree of certainty whether it would be in my power to attend or not. I have now the pleasure to say that I hope to be with you on the day appointed. I rejoice to hear of the signal success of the American Farmer. It merits all, and more than all, the patronage it receives. I have often thought of writing for it, but my time is so occupied by my agricultural labors, that I seem never to have leisure.

Our agriculture is rapidly improving in this region. We formerly thought ours not a suitable soil or climate for wheat, but now by good husbandry and suitable manures we make fine crops. There have been frequent instances of late of a product of from 15 to 28 bushels per acre, on lands formerly deemed incapable of producing wheat. From a bushel and seven-eighths of Zimmerman wheat, I reaped 42 bushels—a part of it yielded at the rate of 28 for one.

We are using Guano to some extent. The African we find greatly inferior to the Peruvian. The price of it is too high considering the low price of wheat. I wish to purchase about 10 tons, and if the price falls under \$40 I will do so. I have been informed that Mr. Wm. Harding, of Northumberland County, Va., made through a considerable field dressed with Peruvian Guano, 27 bushels of wheat for one. The land on which this was accomplished is precisely such as is sold throughout the "forest" of the Northern Neck at 2 to \$4 per acre. He had of course improved it somewhat by other manures (lime, &c.) before. Mr. Robert Lyell, of Richmond

County, made from a similar dressing, on very poor and unimproved corn land, near seventeen bushels for one. Thousands of acres of such lands as Mr. Lyell's and Mr. Harding's, in a healthy region too, may be purchased in their unimproved state for less than \$4 an acre. Yet people will press to the west in search of land!

I remain with the highest respect, yours,

WILLOUGHBY NEWTON.

Samuel Sands, Esq.

FROM DR. THOMPSON, OF DELAWARE.

WILMINGTON, July 31, 1848.

My Dear Sir:—Your valued favor of the 25th of July came duly to hand, with your circular and No. of the American Farmer sent—and in my reply thereto, permit me to thank you for the place and consideration you have been pleased to assign me among the eminent names you have selected to decide upon the merits of the prize essays you have so generously offered premiums for. I accept with pleasure the appointment, and can see nothing now to prevent my being able to meet the gentlemen in Baltimore at the time appointed. Indeed, I will put myself to much inconvenience to accomplish it—the object is a noble one in many points of view, and I have no doubt the trouble and pains you and your correspondents have taken in it, will accomplish great good in lighting up many an old homestead hearth—enriching again thousands of acres of exhausted fields in the midst of schools, churches and colleges in the finest climate of the States, and adjacent to the best markets for all our agricultural products—besides all this, will be the moral and physical effect of keeping up the love of State, family and home. How few would migrate to the West—forsaking the graves of their ancestors—severing the nearest and dearest ties of blood and friendship—were plenty once more poured forth from those deserted, tho' loved old acres on which they were born. Yet all this has and will be done—the lights of science in agriculture are being rapidly exhibited over our whole Union—in no quarters more than in those old States where agricultural journals have long held sway—the "American Farmer" among the first—and which has continued in character and excellence, still eminent in worth and usefulness among so many honorable rivals. To a few untiring, devoted individuals in each State, and the agricultural press in particular, do we owe certainly a large portion of our present advancement in agricultural thrift and honor, and the time is not far distant, when the memory of their humble deeds and toil will be remembered and fully appreciated. Not, however, till the agriculturist, through such conventions as you are about calling in Maryland to assert your political, as well as just claims in the distribution of State favors and distinctions, will the American Farmer hold the place he merits, or the great interests he represents—being more than three-fourths of all others—For so long as he is excluded from your halls of legislation—National and State—where he should always hold the balance of power and form the majority—and *will as he becomes wise*, so long will his *caste* be what it is—(most unjustly)—beneath that of the meanest pettifogging professional man—who fawns upon him for his vote—but once elected holds him, the farmer, his applications and aspirations, in utter contempt. In a word, until the American Farmer, Planter, Merchant, and Manufacturer are more frequently elected to our assemblies and Congress

—where as owners of the soil, dealers and manufacturers of its products, and representatives of the real wealth and labor of the land—which is first and beyond all other interests—the talented and educated farmer, as well as the others named, are humbled—kept down from the lofty place they should occupy in a Republic; and just in proportion as this political degradation is kept up—against the fathers of agriculture—so will their sons leave the old homesteads—and despise the plough—which turns no furrow to them towards State or National honors—And is this not all natural in the sons of our ambitious people? Until, through State Conventions of farmers—thru' the power of the agricultural press, and the power of public opinion in an agricultural Republic—we can bring about this one great change, viz: the elevation in each State of the citizen who has done most for agriculture or manufactures or commerce, I tell you, and have held this doctrine for a quarter of a century, our liberties are not safe. Many of our oldest agricultural friends and writers know what have been my views a very long time ago upon this subject. It lies at the foundation of all agricultural evil—poor lands—poor children—deserted homesteads—high taxation—and breaking up of old and honorable families, and going West, away from civilization, schools, and all that is good in society—from the high and prized advantages I have mentioned, down, as an old friend of mine once said, to the abandonment of oysters, terrapins and canvass-back ducks. But I trespass upon your patience, and must conclude—holding in high esteem your paper, motives and exertions in the great cause of agricultural improvement for so many years, you have my best and most ardent wishes for full success in all your undertakings; your valued aid in bringing about the long desired agricultural revolution of not only renovating exhausted lands, but of placing the owner and tiller of the soil in high places, who must in the main pay the tax and support the government in peace or war, has my best wishes. Twenty years ago, I remember the remark of the venerable Judge Peters—a lawyer himself—the friend of General and Judge Washington—that the great evil of the day, and it was increasing, that young lawyers without clients or interests, were so often selected for Congress and our legislative bodies—where the love of long talks, and wasting the time and money of the people, had become an evil that should be corrected—intrigues for place, power and money, with notoriety too often with such representatives—assume the place of the public good; and spurious talents and specious pleadings with the wily arts of the politician, too often absorb and captivate the bestower of the elective franchise—all evils to be corrected, before you can elevate the farmer to his proper level, and induce the young and talented men of the day to follow the plough and all the honorable pursuits of agriculture—By assuring him that like Cincinnatus of old, he may and ought to be called from the pursuits of agriculture to the high station of serving the State in any and all capacities. With many apologies for thus taxing your time and patience, I must subscribe myself as ever an ardent friend of agriculture and agricultural reform. Truly and sincerely yours, &c.

JAMES W. THOMSON.

FROM DR. DARLINGTON, OF PENN.

WEST CHESTER, Pa., Aug. 2, 1848.

To the Editor of the American Farmer:

Dear Sir:—Yours of July 25th, with a copy of the

July number of the "American Farmer," in which you have done me the honor to name me as one of the Judges of Prize Essays, was received a day or two since.

I regret very much, that it will not be in my power to attend, at the time mentioned for the meeting of the Judges,—as I shall be under the necessity of going to Bedford, in the interior of this State, at that time, to look after the prosecution of some men who are believed to be concerned with an unfortunate robbery, perpetrated on me, in December last. As, however, you have designated several distinguished gentlemen, who will doubtless be present, and duly perform the duty assigned to them, my absence can only be a subject of regret to myself.

I cannot but hope, that your extraordinary liberality, in offering the prizes, will elicit some essays, as valuable to the interests of agriculture, as the offer is honorable to yourself. If such devotion to the cause, will not induce the farmers to sustain your efforts in their service, I know not how the great object of agricultural improvement is to be accomplished. But such persevering zeal must ultimately succeed.

With grateful acknowledgments for the honor done me, and sincere good wishes for the success of your labors, I am, dear sir, your most obed't serv't,
WM. DARLINGTON.

CHARLES B. CALVERT, Esq. of Prince George's, and A. BOWIE DAVIS, of Montgomery County, Md., have consented to serve on the Committee on Essays—the latter in place of Judge Dorsey, declined.

The list of Premiums for the Fall Exhibition of the Prince George's Agricultural Society, which takes place on the 18th and 19th October, will be published in our next.

PENNSYLVANIA CULTIVATOR.—We have received the first No. of a new journal devoted to the interests of Agriculture, entitled the "Pennsylvania Cultivator, and Mechanic, and Iron and Coal Register," published at Harrisburg, Pa., at \$1 per annum, by Foster & Co.—Dr. Thos. Foster, Editor. If the number before us is to be a fair specimen of the manner in which the work is to be conducted, we have no doubt it will command an extensive patronage.

ETRURIAN WHEAT.—A gentleman in North Carolina, to whom we forwarded some of this Wheat two years ago, writes us as follows:

"I am much pleased with the Etrurian Wheat you sent me—I succeeded well with it again the last season. The Hessian Fly damaged the Golden Chaff nearly one half, while the Etrurian variety nearly escaped injury."

FINE SHEEP FOR THE EXHIBITION IN THE FALL. By a note from Clayton B. Reybold, Esq., to the Editor of the Farmer, we learn that a fair specimen of his Oxford and other Sheep will be present at our Fall Exhibition.

FREDERICK COUNTY, MD.—A meeting of the farmers of Frederick, is called for the 2d inst. at the Court House, to appoint Delegates to the Agricultural Convention.

A meeting is to be held this week at Govanstown, Baltimore Co., to appoint Delegates to the same Convention.

EXPERIMENTS WITH GUANO.

In our August number, we gave the result of an experiment made with *Peruvian* and *African Guano*, which, as far as it had then progressed, shewed very disadvantageously for the fertilizing effect of the latter. On the 2d of August we had brought to us three samples of the stalks of the Millet grown on the experimental 7 acres, and having desired that they should be a fair average, have no doubt that they were so. They respectively measured, as follows: those grown where 200 lbs. of *Peruvian Guano* had been applied to the acre, measure 5 feet 6½ inches in height; those manured with the same quantity of *African Guano* per acre, measured 5 feet 2½ inches in height, while those which were grown on the part *unmanured*, only measured 2 feet 9 inches. We learn from our friend who made the experiment, that much of the *African Guano* was in lumps, and we presume that its slowness in action may have arisen from that circumstance, as it was not till after the heavy rains which occurred from the middle to the end of July, that the fine effect of the *African Guano* became manifestly visible.

This supposition is, we believe, reasonable, as until dissolved and decomposed, by heat and moisture, it could not throw out its nutrimental principles, and hence the tardiness in the growth of the plants on the ground manured with it. Both parcels of Millet grown on the *guanoed* part of the land, were of a dark green, healthful hue, while that on the *unmanured* portion of the land was of a sickly cast. The results of this experiment, we think, attests, beyond all cavil, the intrinsic value of each kind of guano as a fertilizer of the soil, and should commend both to all possessing the facility of procurement, who may have worn-out lands, to avail themselves of their use, as a sure means of improvement.

Dr. Bayne, the celebrated horticulturist of Prince George's Co. Md., in sending us the names of some new subscribers to the "*Farmer*," pays the following compliment to our journal:

"I have not been able to induce more of my neighbours yet to take your valuable paper, but hope to be more successful in future. It certainly should be subscribed for by every man who bears the appellation of farmer. I have no hesitation in saying that any one who has in possession one acre of land, would be amply compensated for the price of subscription."

A letter from a subscriber in Hicksburg, Dorchester Co. Md., enclosing the cash for a list of new subscribers, says:

"It affords me much pleasure that I can be the means of increasing (though in a small way) the circulation of your valuable paper; our section of country much needs the information which such journals are calculated to impart; we are sadly behind the times in the renovation of our soil, though the spirit of improvement is abroad among us, and I hope the day is not far distant when our people will wake up to their true interests."

ADVANTAGES OF DRAINING WET CLAY LANDS.

By draining wet clayey lands the following benefits will result:

1. Fully one-third the amount of labor in ploughing and tillage will be saved.

2. By relieving such land of its redundant water, a more intimate mixture of the argile and silex will take place, so that by this mechanical admixture and division of the particles of the two, there will be formed, as it were, a new soil, more easily worked, more susceptible to the influence of sun and air, more absorbent of the dew, and more readily percolated by the rain.

3. By this new union of the two chief mineral constituents of the soil, it is rendered more porous, and hence a capacity given to it, through its increased permeability, not only of absorbing a much larger quantity of nitrogen from the atmosphere, but of condensing it within its pores, and thereby adding to the nutrimental supply of the food of the plants.

4. By the increased degree of friability imparted to the soil, and the consequent meliorated condition of the heat and moisture admitted into, and maintained in, its bosom, the decomposition of the manure is more healthfully carried on, its nutrient gases more freely given out, and the plants derive, as a consequence, much more benefit therefrom.

5. For the reasons assigned, less manure will answer.

6. The quantity of the products is increased, while the quality is improved.

7. The land, by its improvement in texture, is sooner ploughed, or otherwise worked, than while in its unimproved state.

8. Mineral manures act more promptly and with much greater efficiency.

9. By draining, the tendency of clays to crack, is lessened.

10. When in pasture, the herbage is more abundant, of a better variety, sweeter, and more nutritious.

11. It will bear deeper ploughing, and consequently, a greatly enlarged pasturage may be given to crops grown upon it,—while they will alike be relieved from the disadvantageous effects of long continued droughts and rains.

12. Drained lands are less subject to the winter killing of grain crops than those that are undrained.

DOINGS OF AGRICULTURAL CLUBS.

We have heretofore laid before our readers many valuable and highly interesting papers emanating from Agricultural Clubs, and we had hoped, that their publication would have stimulated other kindred associations to have given their proceedings also. We have been long looking, but so far in vain for light from the Agricultural Club of Kent County in this state, a club composed of gentlemen, who are

not only pre-eminent as practical farmers, but whose literary and scientific attainments qualify them to teach the business of Agriculture not only as an art, but as a branch of science. Why then, should lights so luminous be hidden from the public gaze?

After the above was penned we received the Kent News containing the following brief report:

At a meeting of the Agricultural Board, of the Agricultural Society of Kent county, on the 8th inst., the opinion of members was asked in reference to the proper time of seeding wheat:

Mr. RICAUD thought all wheat should be seeded as early after the 15th August as practicable.

Mr. SMITH agreed that Mediterranean wheat should be seeded so early, but other wheat may be advantageously seeded up to 10th October.

Dr. KENNARD—The proper time for all wheat is from 20th August to 10th September.

Mr. WILKINS concurred in opinion with Dr. Kennard.

Mr. WESTCOTT—From 1st August to 20th September, season suiting and ground being in proper order, which are considerations of controlling influence.

Mr. PRICE—All wheat should be seeded from 20th August to 10th September.

Mr. SPENCER thought nothing was to be gained by seeding before the 1st September.

Mr. CONSTABLE—Decidedly in favor of early seeding, from 20th August to 20th September.

Mr. RINGGOLD—Has seeded early for two years past, thinks his wheat seeded from 1st to 15th September best; seeded a portion of his crop last year as early as middle of August.

JUDGE CHAMBERS.—Seeded on the 16th August as long since as 1837 with singular success. The best wheat he had this season was seeded in the middle of August, which is the favorite period with him.

REPORT ON FARMS OF MEDLEY'S DISTRICT AGRICULTURAL CLUB, OF MONTGOMERY CO., MD.

The Committee of Inspection of Farms of this excellent society, recently made a report of their proceedings. The report is now before us, and we regret that its extreme length precludes us from giving it an entire insertion, but as our columns are limited we shall have to deny ourselves that pleasure, and be content with making an abstract of a portion and extracting its concluding paragraphs:—

The committee, consisting of the venerable Dr. Wm. Brewer, Benj. Shreve, esq., and Benj. White, esq., performed their duty with praiseworthy zeal and most becoming thoroughness. They visited the farms of Nathan G. Henston, Dr. Wm. Brewer, Jos. C. White, Dr. Nicholas Brewer, Jos. Brewer, Joseph Bruner, Geo. W. Chiswell, Wm. Chiswell, Alex. E. Soper, Wm. Cissel, Warren King, Patrick McLeod, John A. Jones, Benj. White, Richard H. Jones, Col. Benj. Shreve, John L. T. Jones, Saml. Young, Henry Young, Hezekiah Trundle, Wm. Matthews, Frederick Poole, James N. Alnutt, Robt. M. Williams, Horatio Trundle, Joseph White, Saml. Milford, Benj. White, Jr., and Walter Williams.

The soils of nearly all the farms of these gentle-

men had been worn-out by long continued, improvident culture, but, within the last few years, their enterprising proprietors, with patriotic determination undertook to arrest the downward tendency of former culture, by adopting a course of improvement—and it is highly gratifying to find by the report, that their labors have been crowned with entire success. The crops grown, and growing, of the present season, testifying by the most substantial evidence to be afforded by fruitful yields, past and prospective, of *Wheat, Rye, Oats, Corn, Grass, Clover, Tobacco and Roots*, that the skill and perseverance of the several proprietors of the respective farms, had overcome the deteriorating effects of the neglect of former years, and infused into their soils the spirit and the power of productiveness, thereby demonstrating the animating truth, that exhausted fields can readily be renovated, and only requires industry, judgment and well-directed enterprise to restore them to their virgin fruitfulness. These requisites have all been called into active operation by the gentlemen before enumerated, and they are not only reaping pecuniary rewards, but that richer and more ennobling one, which springs from the consciousness of having fulfilled an important duty to the land of their birth—and of having set an example to the patriotic people of old Montgomery, whose influences will be felt for ages yet to come. Besides being careful in the collection of materials to form composts—besides husbanding all the manure made by their stock, and preventing its waste or deterioration, these gentlemen have bought lime, guano, salt, salt-petre, plaster and ashes, and, in most instances, derived the most substantial benefits from their application. Lime kilns have been erected, lime burnt and given to the land with a liberal, though judicious hand, and clover as freely sown, so that whilst they have received present benefit, their system of improved culture looks forward to permanency.

The utmost care and attention have been paid to their orchards—while the ladies, to whom the care of the Gardens were entrusted, not to be out-done by their husbands, sons and brothers, have more than emulated their good examples. This brings us to another part of the labors of the committee, of which we shall now speak.

There is one feature in the Report of the Committee on farms which cannot be too much applauded. We allude to the minute examinations which they made of the gardens attached to the several farms.—These appear to have all been under the management and direction of the Ladies of the homesteads visited—and, as was to have been expected, were all found well tended, and as well provided with vegetables of various kinds. In most of them choice fruits and flowers abounded. We say this was to have been expected, for when did woman, in her purity and singleness of heart—in her love of family and kind—in her pride of character and devotion to home, fail to fulfil every obligation of duty con-

fided to her charge? Never! No Never!! She is ever faithful,—true as the sun to his daily course,—and measures toil with a rule as expansive as her nature is kind, generous, and noble. To do good, is the desire and the food upon which her every aspiration luxuriates, and to do it without stint, and from love of the motive which prompts the action, are the cherished impulses which carry her onward in the performance of her holy duties—impulses which enable her to overcome obstacles from which the sterner sex would shrink.

It was gratifying to us to notice that the committee were particular in looking up *STRAWBERRY BEDS*—*that fruit being in season*—and that they were as particular, whenever a garden was not already provided with one, in recommending that the deficiency should be supplied by the time of their next visit, and we have no doubt that they will not be disappointed.

The following are the names of the ladies whose gardens were inspected by the committee, each of whom receive in their report a well merited compliment:—Mrs. Wm. Brewer; Mrs. Joseph C. White; Mrs. Nicholas Brewer; Mrs. Joseph Brewer; the Misses Joseph Bruner; Mrs. George W. Chiswell; Mrs. Wm. Chiswell; Mrs. Alexander Soper; Mrs. Wm. Cissel; Mrs. Warren King; Mrs. P. H. McLeod; Mrs. John A. Jones; Mrs. Benjamin White; Mrs. Richard H. Jones; Mrs. Col. Shrieve; Mrs. John L. T. Jones; Mrs. Samuel Young; Mrs. Henry Young; Mrs. Hezekiah Trundle; Mrs. Wm. Matthews; Mrs. Frederick S. Poole; Mrs. James S. Abut; Mrs. Robert M. Williams; Mrs. Horatio Trundle; Mrs. Joseph White; Mrs. Saml. Milford; Mrs. Benjamin White, Jr.; Mrs. Walter Williams.

We now introduce to our readers the concluding paragraphs of the Report, which we give entire:

"Your committee might here close their labors, but they cannot forbear expressing the great pleasure they enjoyed whilst in the discharge of their duty, in witnessing the efforts generally made by the members of this Club, not only in endeavoring to restore land naturally kind, and which had been reduced by careless management, but by overcoming the natural defects of a barren and obdurate soil, which has ever been an opprobrium to the agriculturists, and only valuable for the wood upon it, for under these circumstances their efforts have been measurably crowned with success; for we are constrained to declare, that in our opinion, every member has more or less improved his farm. Some have done little, the greater part have done more, whilst others have made a surprising change for the better, not only upon the kind which had been reduced, but upon the barren and intractable. For a proof of this we would show you the farms of Dr. William Brewer and Mr. Samuel Young,—soils heretofore considered naturally unproductive, and almost worthless for the culture of grain or root crops. Under their judicious management, through the free use of lime and other manures, together with deep and thorough ploughing, the appearance of these farms stands far before many of the more congenial soils. Who can view them without being forcibly struck with the

change that has been wrought within the few past years? Where poverty grass, cinquefoil, moss and briars reigned supreme, there are handsome clover, corn, and even respectable wheat fields, all giving evidence that such lands can not only be improved, but made profitable to the owners, and at reasonable expense, when compared with the increased value. Your committee would further state, wherever lime has been freely used for the few last years past, there the improvement appears to be much the most striking and permanent, inasmuch, that they without hesitation would recommend it as the first step in the system of improvement for worn-out, impoverished or naturally poor land, but more especially for the latter. They desire distinctly to be understood, it is not their opinion that lime alone will be sufficient to make the most of such land fertile, but that it should be first used, then aided with deep and thorough ploughing, together with all the various manures within the power of farmers to procure, and they should always commence the succession or routine of crops with an ample manuring. The great difficulty of conveniently procuring a sufficiency of material to make enough domestic manure to answer this purpose is so great, that to facilitate this important object it becomes needful, or at least convenient to resort to the use of foreign. Much knowledge is likewise necessary to properly compound manures so that they may act to the best advantage, and the uncertainty of procuring foreign at convenient seasons, in sufficient quantities and at suitable prices, induce your committee to notice a proposition, made in the February number of the *American Farmer*, to form Clubs in all the election districts in the State with a Library to each; every club to appoint one or more delegates to meet and organize a Maryland State Club, for the purpose of considering all matters and things concerning the farmer's welfare. They highly approve this proposition, and believe it will contribute to the benefit of the farmers. Through the diffusion of knowledge, their operations must be greatly facilitated, and their minds being enlightened, will better qualify them to assert and maintain their rights and protect their interest. It is an undeniable fact that combination and concert will accomplish objects which no individual can effect. Therefore, by the agency of this State Club, the ways and means may, and no doubt will, be devised, to remove the existing difficulties, and procure an ample and timely supply of those agents or foreign manures, which the farmers of Maryland need so much to improve their impoverished land, and at such prices as they can afford to give. Under present circumstances, often the sudden rise of the price of Plaster of Paris, of common Salt, Guano, &c. is so great, that the enterprising small farmers, the working-men, those who have the best opportunity from observation to form correct opinions and make fair experiments, men who live by their labor, cannot afford to buy, consequently their schemes and plans being thwarted, serious injury to them must result. Under these considerations your committee are of opinion that all articles used as manures should be imported free of duty, and that some plan should be arranged to fix their prices at prime cost and fair importation charges, for by the increase of production and consequent exportation, the cities, and particularly the merchants, will be greatly benefitted. These advantages can only be obtained by union and combination. The scheme proposed seems feasible, but as the best proposition will fail unless properly supported, they would earnestly re-

commend this club to give it their most energetic support.

LARGE ONIONS.—Mr. Garland, of Elk Ridge, Howard District, sent us on the 5th of August two onions which were raised by him from seed sown this spring. They were taken up on the 1st, and had not completed their growth. The largest measured 10 inches around the girth, and weighed 4½ oz., the other measured 9½ inches, and weighed 4 oz. 5 drachms. Larger or finer onions we have never seen, and their extraordinary size goes to establish the truth of what we have for years contended for,—that there is no necessity for raising sets the previous year to ensure a crop of well sized onions, and that all that is necessary to ensure success, are, first, that the ground be well manured with good rotten dung; secondly, that it be well prepared by truthful digging and raking; thirdly, that the seed be drilled in in early spring, and fourthly, that the onions be kept clean. Those who may pay attention to these prerequisites, need not apprehend any fear of raising a crop of sizeable onions, nor of being compelled to pay, as was the case last spring, from 6 to \$8 a bushel for onion sets, as the bulb will grow large enough in one season from the seed.

HOW TO PRESERVE PEACHES.

We find the following recipe going the rounds in the papers to preserve peaches so as to retain their flavor, and as this is the season for such work we publish it, in order that our readers may have opportunity of testing it:

"Clean your peaches, by pouring hot water upon them, and afterwards wiping them with a coarse cloth; put them into glass or earthen jars, cork them up and fasten the corks with wire or strong twine; then place the jars in a kettle of hot water until the atmospheric air is expelled from the jars; after which seal them up tight with wax. Peaches prepared in this way retain their original flavor, and are equally delicious, when cooked in the ordinary manner, six months or a year after being put up, as if just taken from the trees."

CALIFORNIA GRASSES AND CLOVER.—Edwin Bryant, in his recent work on California thus speaks of the grasses and clover of that country:

"The varieties of grasses are greater than on the Atlantic side of the continent, and far more nutritious.—I have seen seven different kinds of clover, several of them in a dry state, depositing seed upon the ground so abundant as to cover it, which is lapped up by the cattle and horses and other animals, as corn or oats when thrashed, would be with us. All the grasses, and they cover the entire country, are heavily seeded, and, when ripe, are as fattening to stock as the grains which we feed to our horses and hogs. Hence it is unnecessary to the sustenance or fattening of stock, to raise corn for their consumption."

Our naval officers would do their country good service, by introducing seeds of these clovers and

grasses into the States. And as we are deeply impressed with the importance of such a movement, we hope that the Secretary of the Navy will feel sufficient interest in the matter, as to issue such orders as will ensure its being done.

PATENT CHURNS.—Patent churns, a notice of which we copy from the St. Louis Republican, are now for sale in this city by Mr. J. G. Foote. We have the pleasure to acknowledge a present of one from the proprietor. We have made but one trial at churning with it, when butter was made from cream in twelve minutes. The operation of the churn is so easy that any child four years old and upwards can work it. And by the bye we notice by an advertisement in the Iowa State Gazette that the right of making and vending these churns in this, the northern Congressional district of Iowa, is offered for sale. Truly a first rate chance for speculation.

Iowa Farmer Advertiser.

ATMOSPHERIC CHURNS.—We have been shown a new churn, invented and patented by Lewis and Johnson, of Springfield, Ill., the 9th of May last, which operates on a new, but correct philosophical principle, and with incredible ease and rapidity. The principle consists in the introduction, by means of exceedingly simple machinery, of the atmospheric air into the body of milk. The air, by its own action, produces the separation of the milk from the butter. The machinery is very simple, and principle undeniable, and the operation of churning can hardly be said to be a labor at all. By this machine, an ordinary churning could be made by a child of four years old, and that too without waiting for the cream to rise or the milk to sour.—Yesterday morning in less than fifteen minutes, at Scott's Hotel, butter was produced from fresh milk from the dairy wagon of Messrs. Clark & Fine, as abundant and as good as could have been obtained by the ordinary process, and without the aid of water.

St. Louis Republican.

THE HORTICULTURIST for June, publishes an account of a method of keeping the rose-bug from plants and fruit trees, which is worth copying.

To prevent the Attack of the Rose-Bug.—Sir—I noticed in the Horticulturist of August last, the complaints of "A Jerseyman" against the rose-bugs, and he inquires whether there is any remedy. I have, for several years, applied a simple, easy, and effectual remedy for them. Take dry ashes—those taken up in the kitchen the same morning are the best, because driest—and with some little paddle, or a transplanting trowel, throw them plentifully into all parts of the tree or shrub while the dew is on, and the earlier the better. A repetition on two or three mornings will be well at first—after that a little watchfulness will discover whether any further application will be necessary. These bugs frequently destroy the tender shoots of young cherry trees and the blossoms of our grapes in this section of country. I have never known a plentiful sprinkling of ashes, for a few times, fail of saving the trees or securing a crop of grapes from their ravages.

I have used the same remedy for the curculio on the plum-tree, and have never known it fail of saving the crop when begun in season, and followed up regularly two or three times a week. After a rain it should be immediately renewed.—R. Newton, Worcester, May 10, 1848.

THE PEACH TREE.—In the Horticulturist for May, "A Jerseyman" holds forth on the subject of the cultivation of the peach tree. He thinks that one of the reasons of the short life of this tree is its tendency, in some soils, to exhaust itself by overbearing. His remedy is to shorten the bearing shoots, the young growth of the previous year. The disease in peach trees, called the yellows, he thinks the consequence of this tendency, combined with a want of the proper nutriment for the tree in the soil. Of the shortening process applied to the shoots, he says:

"The fruit that is left is much larger, and a great deal more delicious than if the tree goes unpruned, and bears a full crop. This I have twice satisfied myself of by direct experiment, on trees side by side, of the same variety; and you could scarcely credit the improved quality of the pruned tree, without comparing them.

"One of my acquaintances, who is an intelligent orchardist, and grows peaches for market on a large scale, now makes his trees branch out, or form their heads quite low, and then shortens them in with a pair of large hedge shears, (the blade two feet long) fastened on long handles. In this way it is but a short job to prune a whole orchard.

"I have used wood ashes as a manure for peach trees with the greatest benefit. It gives them a particularly healthy and sound look; that is without becoming gross, or over-luxuriant, they make a moderate growth of good plump shoots, have very healthy foliage, bear high colored and well-ripened crops.

"I use wood ashes, either leached or unleached. The former is, if quite fresh, about three times as strong as the latter, and, therefore, while half a peck of unleached is sufficient, usually for a young tree just beginning to bear, I have found half a bushel not too much of the leached ashes. It ought to be spread over the surface, and dug in a few inches only. Probably the best time of applying it is in October; but I have also found it to answer admirably as late as June—very soon, if the season is a rainy one, changing the common color of the leaves to a deep emerald hue.

"I have so high an opinion of the good effect of ashes that (agreeing with you, that the yellows is only a disease, caused by bad treatment and exhaustion) I feel almost certain that the shortening-in mode of pruning, and the use of ashes, will drive this malady out of the country, if cultivators can be brought to estimate properly their joint value."

LIVE FENCES—OSAGE ORANGE.

In conversation with Mr. Neff, at Cincinnati, (who first introduced the Osage Orange as a hedge plant in the West,) he stated that notwithstanding the large quantity of young plants he has already on hand—enough to plant nearly twenty miles of hedge—he has purchased a large quantity of seed for sowing this spring for himself and others on lands in Illinois. He said to us, that, in his opinion, we could not do our readers greater service than by urging them to plant hedges of the Osage Orange.

The hedge, first planted by him on a farm seven miles from Cincinnati, he informs us, is now ten years old, and affords satisfactory proof of the perfect adaptedness of the plant for the purpose. The hedge has not been well trimmed during the past five years since he sold the place, still it is an effective and handsome fence, the plants grow uniformly, are uninjured by insects or blight, and show no disposition to "die out" or become thin near the ground.

We also saw an old hedge of this plant on the

grounds of Mr. L. Hommadieu, adjoining Mr. Jackson's, which is about ten years old, and growing in grass land and directly under the shade of a row of large locust trees, where we should not expect to see any kind of tree or shrub flourish; still the hedge is perfectly healthy, very uniform, neat and handsome. The plants in the hedge of this age, and on ground not rich, do not appear to grow faster than the hawthorn; hence there is not that danger which many have anticipated from a need of frequent and severe trimming.—*Ohio Cultivator.*

CULTIVATION AND MANAGEMENT OF TOBACCO IN VIRGINIA.

"An Overseer" gives the following instructions relative to this crop to the editor of the Southern Planter:

"In the first place, I will say that I think the Yellow Prior is the best for rich lots, and the Big or Ruffled Oronoko the best for thin land and new ground. The Yellow Prior is rather a late tobacco, and has the appearance of being ripe or nearly ripe at least two or three weeks before it is really so. The best mode of cultivating, I think, is to break up the lots about the first of August, and run a heavy brush over immediately after the ploughs, which fills up the open places between the furrows, and effectually kills all the vegetation, especially the hergrass. And if the land is to be manured with wheat straw it should be re-ploughed in January, and the straw turned under. A great many managers lay off their low-grounds in six or eight row beds, which I think a very bad way, for after a few years cultivation and re-ploughing, the beds get up in a ridge on the top, and water runs off on each side as fast as it does off the roof of a house, and washes away all the soil—consequently you frequently see about three good rows on the top of the bed, and the rest poor; and so it is with the wheat crop. The best plan is to lay off the low grounds in forty feet beds, running from the river to the hill-side, and run the rows across the beds, having a deep drain furrow where ever it is necessary. By running the rows across the beds, the soil is kept equally distributed across the beds. Another practice prevails of priming too low. The tobacco is generally in top before there is a large hill to it; and having scarcely any hill to it when it is primed, it appears to be high enough, but by the time it has a large hill put to it, the dirt is all mixed up with the bottom leaves, and so soon as the dirt is thrown up among the leaves, especially if the land is inclined to be wet, they perish away, and make nothing but the meanest lugs. It should be primed high, and topped at eight leaves, if the land is strong enough to bring them to perfection; if not, top at six leaves. I assisted in the management of a crop of tobacco in 1840, of thirty hogsheds, and we only made two hogsheds of lugs. Tobacco should never be ploughed after it begins to come in top, but should have a round and large hill, as soon as it is large enough to bear it, and there should not be any loose dirt left between the hills, and never work it when the land is wet. If tobacco is cut in very warm weather it should be pressed together on the scaffold, and bushes put around to prevent the sun from scalding it. It should remain on the scaffold about four days if the weather is fair, though rather than have it cut in the rain I would put it in the house in two days. Fire with oak or hickory wood, and keep but very small fires for at least two days, when they may be gradually raised,

though they should never be large. From three to four days is as long as tobacco should be fired.—Never put fire under tobacco when it is wet. It is customary with a great many when they get their tobacco in prize order in the spring, to strike it down on the sticks, and then haul it up to the prize barn and pack it down there; but this is a bad practice, for in hauling up, or in waiting for an opportunity to haul it, some of it invariably gets out of order, either too high or too dry. Barn doors should all be made wide enough to admit of a tobacco hog-head being carried in the barn. The tobacco should be bulked down in the barn where it is struck down, and weighted heavy; and when it becomes necessary to carry it to the prize barn it should be nicely packed in hogheads, one bundle at a time carried to the prize barn, and as soon as it is taken out of the cart put under the prize. Get a good set on it, then put it aside, and re-prize it in another hoghead, and when you come to sell you will find that you are well paid for your trouble.

FROM THE PROCEEDINGS OF THE DELAWARE AGRICULTURAL SOCIETY.—The following letter from an intelligent agriculturist of our county, on a subject of much interest, the Osage-Orange as suitable for live fences—contains some practical suggestions that the club deem of value, and take the liberty of publishing Mr. Exton's letter.

Marldale, May 1st, 1848.

DR. JAMES W. THOMSON:

Dear Sir,—Having noticed that at the last meeting of your Agricultural Club, the propagation of the Osage-Orange was a subject of discussion, and I having had some experience in raising that tree, I would beg leave to intrude upon you a few remarks relative to its culture, and you can take them for what they are worth. About three years since I was presented with a single Osage Orange, from which I raised upwards of one hundred and sixty roots; they grew rapidly and I left them in the nursery for two years, at which time they had attained the height of from five to seven feet; I then last spring transplanted them with care; it will be recollected that the last season was very dry and unfavorable for that purpose. I lost more than half of them. I have this spring transplanted roots of one year old which I fear will not generally succeed, although I have no doubt it would be better to remove them at that age than older. The result of my experience, however, I think, proves that the better mode of raising this plant for fencing or other purposes, would be to plant the seed where it is intended permanently to grow, as an efficient fence would I have no doubt be produced sooner from the seed than from transplanted roots, as the removing puts them back at least one year.

I would suggest the following mode of planting; throw up a small ridge or bank in order to create a greater depth of soil which on account of their roots running deep, is important, a rich loam is the best; having them planted on this ridge, I would recommend a covering of manure on either side, leaving a space where the seed is planted of six or eight inches wide; the manure, if laid sufficiently thick, not only enriches the soil but it keeps down weeds and renders the ground moist. I have not entered so largely into the culture of this shrub as I could wish owing to the difficulty of procuring seed, but from what I have done I am decidedly of the opinion that the Osage Orange will make an efficient fence in half the time that the common thorn requires and conse-

quently can be raised at much less expense; it is sufficiently hardy, thorny and rough for the purpose, and will bear splashing and trimming as well as the ordinary thorn, and very well adapted to this climate.

Yours very respectfully,
JOHN EXTON.

THE SCIENCE OF AGRICULTURE.

The Baltimore "*American Farmer*," for the present month, commences a new volume, and besides affording in itself an admirable specimen of all that could be reasonably desired in such a work, the editor exhibits increased enthusiasm in a cause which seems to engross his mind and which he undoubtedly understands thoroughly, to wit, the cause of *Agriculture*, and, of course, the improvement of that pursuit by inducing all engaged in it to avail themselves of the discoveries of science and the experience of those who expend their time and means in ascertaining the best way to do every thing in farming so as to obtain the most remunerating results.

The prejudice against "book farming," which exists to a considerable extent, is a contemptible one, and can be harbored only by inferior minds. There are, doubtless, comparatively few farmers who can, if they are ever so well convinced on the subject, suddenly change their accustomed system of operations; but what we think the mass of them censurable for is this, that they don't subscribe and pay for at least one agricultural journal—read it carefully and note the numerous useful suggestions there to be found, and, when practicable, try some of the recommended improvements. Doctors and Lawyers are continually adding new books to their libraries, in order to keep up with the discoveries and decisions connected with their professions, although they have devoted years to acquiring a knowledge of their principles, yet farmers who follow a pursuit involving more mystery and difficulty in understanding thoroughly than the sciences of medicine and the law together, is, by too many, regarded as a business so simple as to require but little thought, investigation or aid of any kind. This delusion is readily dispelled from the minds of those who are willing to read; and we therefore advise all farmers who take no paper specially devoted to their service, to subscribe for the "*American Farmer*," for a year at any rate, which they can get for \$1—a number monthly, which, we think, affords just about enough for those who desire to make the "experiment" of reading such a work.

Our readers will find under our Agricultural head this week, an article which, we think, will interest them. Although very few could achieve what Mr. CAPRON has done in converting the sterile earth into fields yielding abundantly, yet the ease serves to show what can be accomplished by skill, energy and ample pecuniary means, the lack of which latter important requisite we believe to be the great impediment in the way of the ambitious mind and willing arm of many intelligent farmers in their efforts to improve their land and adopt the best system of accomplishing it.—*Chambersburg (Pa.) Whig*.

FENCING.

The enormous tax upon the farmer, which his fencing imposes, is beginning to arouse attention to the discovery of some substitute for the common rail fence now in such universal use.—We have from time to time published papers upon the subject, and will continue to present such views as may be deem-

ed calculated to enlighten the minds of our readers upon the remedy for the evil so loudly and justly complained of. We copy the following article from the American Agriculturist.

THE OSAGE ORANGE FOR HEDGES.

The Osage orange (*Maclura aurantiaca*), known also, by the names of "Osage apple," "bow wood," and *bois d'arc*, is indigenous to Arkansas, Texas, and Upper Missouri, and may be safely cultivated for hedges or ornament wherever the Isabella grape vine will thrive and mature its fruit in open air. In its natural habitat, the Osage orange forms a beautiful, deciduous-leaved tree, often growing to a height of 25 to 30 feet, with a trunk from 12 to 18 inches in diameter; and in very favorable situations, it sometimes attains double these dimensions. The general appearance of this tree greatly resembles that of the common orange; and when we view the beauty and splendor of its dark, shining foliage, large, golden fruit, and the numerous, sharp spines, which the branches present, we are strongly impressed by the comparison. The juice of the young wood, leaves, and fruit, consists of a milky fluid, of an acrid or insipid taste, which soon dries, on exposure to the air, and contains a considerable proportion of an elastic gum. The fruit, however, in open culture, does not ripen its seeds north of Philadelphia.

The most important use to which the Osage orange can be applied, is, for the formation of hedges; and there is no plant, in our estimation, better adapted for this purpose, in any part of the country, where this tree will thrive. Apprehensions have been expressed, by some, that, from its rapid growth, it will soon become too large for live hedges, which it is thought will not endure for a great length of time. This, however, remains yet to be proved. We have no doubt, in our own minds, that, if a judicious system be pursued, in trimming and heading down, they will serve an excellent purpose for twenty, and perhaps thirty years; for there are hedges of this plant in the vicinity of Cincinnati, which are ten years old, and have thus far proved perfectly hardy, very uniform, neat, and handsome in their appearance, and free from the attacks of insects or disease. The Osage orange may readily be propagated by seeds, from which it will grow sufficiently large in three years to form a hedge. It succeeds best on land moderately rich, such, for instance, as will produce good Indian corn; but it will grow in almost any soil that is not too moist. The line of ground, intended for a hedge, should first be dug and well pulverized, say from 12 to 15 inches deep, and 2 feet wide, along the centre of which the plants may be set at a distance of one foot apart.

The seeds, before sowing, should be soaked in water, in a warm room, for four or five days; or they may be mixed with equal parts, by measure, of sand, and exposed a few weeks, in open boxes, to wintry weather, on the sunny side of a building, in order to freeze and thaw. It is preferable to sow them early in the spring, in a garden or nursery, where they will shortly germinate and form young plants. These should carefully be weeded or hoed during the first season's growth, and transplanted in the hedge line in the month of March or April of the following year.—*Amer. Agr.*

GEN. T. TILGHMAN, of Talbot, and Dr. JAS. S. OWENS, of Anne Arundel Co. have been selected as Orators for the next Annual Exhibition of the Prince George's Co. Agricultural Society.

BAYNE'S EXTRA EARLY, & BOSTON PINE, HOVEY'S SEEDLING STRAWBERRY.

By Dr. J. H. Bayne, Alexandria, Va.

I have had strawberries from my Extra early variety in the Washington market just three weeks ago this day. The Boston Pine and Hovey's Seedling were both pulled from under precisely the same circumstances ten days later. For the first, I obtained \$1 50, and \$2 per quart, and this was repeated three successive market days. This variety requires a south exposure, and a light gravelly soil. It is certainly the earliest variety I have ever been able to procure, and I assure you I have spared no pains or expense in endeavoring to obtain the earliest, as it is quite a desideratum here with us. Many persons have entirely failed, even in this climate, with my early. On flat, rich, and adhesive soils, it is not worth cultivating; but, on a congenial soil, it is most valuable and profitable with me. It is a pretty good bearer, and the fruit attains a medium size. I find it also a good fructifier for the Hovey's Seedling when planted in its proximity. I think the plan of mixing the staminate and pistillate plants is entirely unnecessary, as I can prove by ocular demonstration. It is only necessary for them to approach each other in the same patch. I have beds of Hovey's Seedling in profuse bearing, the remote parts of which are not nearer than 150 feet of any staminate plants.

The Boston Pine in some situations with me this season is bearing most abundantly, and, where they have sufficient room, they are literally covered with trusses of magnificent fruit. Some plants, I have no hesitation in saying, will yield a pint of fruit each.

My crop of Hovey's Seedling surpasses any thing I ever had any conception of. I can now pick from three to four hundred quarts per day, and my patches are comparatively small. The demand here is limited, and will not justify a very extensive cultivation.

I have now been cultivating the strawberry for twenty years, and have spent some hundreds of dollars in procuring all the finest varieties as they were announced. I have now come to the conclusion that some four or five are all that are necessary for any purpose. I have thrown out at least fifty varieties which have been extolled in their day. Hovey's Seedling I consider incomparably superior to any and all others I have ever tried, or ever expect to try. It combines every essential to render it desirable. It is fine in flavor, magnificent in size, of beautiful color, and extraordinarily productive. It is the very *ne plus ultra* of all the varieties of this delicious fruit. In haste, with great respect, yours, &c. Alexandria, Va., May, 1848.

[It gives us the greatest pleasure to publish a communication from Dr. Bayne, who has probably given more attention to this fruit than any amateur cultivator in the country, and has himself raised several strawberries.—*Ed. Hovey's Magazine.*]

MANURE FOR FRUIT TREES.—The best compost for "all fruit trees," (without endeavoring to suit the specific wants of each particular fruit,) is a compost of peat swamp muck, reduced, or rendered available to plants, by unleached wood ashes. The peat should if possible be dug and carried out in winter—though it will answer if dug in the spring. As early in the spring as convenient, mix thoroughly the wood ashes with the peat, in the proportion of five bushels of good hard wood ashes to one wagon load

of peat. Let the heap lie a week, turn it over to incorporate more thoroughly, and in two or three weeks it will be fit for use. This compost, or manure, contains largely of lime, potash, phosphate, and vegetable matter, the elements most necessary to the growth and health of fruit trees generally—and all in a state ready for food for these trees.—*Hort.*

PROPER DEPTH OF PLANTING WHEAT.

From the 113th page of the Report of the Commissioner of Patents we take the following extract:

"Experiments have been tried with respect to the depth of planting wheat. *M. Moreau*, of Paris, formed 13 beds, in which he planted 150 kernels of wheat at various depths. The result was as follows:

	No.	No.
At the depth of	Came up.	of Heads. of Grains.
7 inches	5	53
6½ "	14	140
5½ "	20	174
4½ "	40	400
4½ "	73	700
3½ "	93	992
2 3-5	123	1,417
2½ "	130	1,560
2 "	140	1,590
1½ "	142	1,660
1 "	137	1,561
½ "	64	529
On the surface,	20	107
		1,600

"By this experiment the maximum as the number that came up was 1½ deep, the minimum at 7 inches; the maximum of the number of heads was also 1½ deep, the minimum 7 inches; but the maximum of the number of grains was 2 inches deep and the minimum 7 inches deep. The range from 2 3-5 inches down to 1 inch, varies in those that come up only about 20, for the extremes of maximum and minimum of the heads 243, of the grains 2,331. Between 2½, 2 and 1 inches of those that came up, there is only a difference of about 10 at most; of the heads only 30; of the number of grains, 1,476."

"Looking at it, however, in another light, we may rate the depth of 2 inches as best, then 1½, then 2 3-5, then 1 inch, then 2½ inches. After 4½ inches, the falling off of the product is 1-2; from ½ inch to the surface it reached to 9-10. Where there may have been extraneous causes influencing, the difference between 2 3-5 inches and 2½ inches, which seem to vary from the general rule; but it may doubtless be considered, so far as this experiment goes, that the grain should not be sown at much greater depth than 2 inches, nor nearer than 1 inch from the surface. The difference to be allowed should respect the season, the nature of the soil, &c."

RAW AND COOKED FOOD.

The following table shows the difference in bulk between cooked and uncooked food, and as distention forms an important point in the philosophy of feeding, the reader will be able to determine for himself the relative value of each. The table is taken from the Com. of Patents' Report:

4 measures of Oats have been incre'd by cooking to 7.	
4 " Barley " " "	10.
4 " Buckwheat or Bran " " "	13.
4 " Maize " " "	14.
4 " Wheat " " "	10.
4 " Rye " " "	15.
4 " Beans " " "	8½.

VALUE PER ACRE OF CERTAIN KINDS OF FOOD.

The following calculation gives the relative value of certain kinds of food, per acre:

Crops.	Average produce per acre.	No. of lbs. of true nutriment.
Beet, Mangel Wurzel and Turnips,	30 tons.	672 lbs.
Beans,	30 bu. or 1,980 lbs.	594 lbs.
Potatoes,	8 tons.	358 lbs.
Peas,	20 bu. or 1,160 lbs.	348 lbs.
Barley,	36 " " 1,872 "	243 lbs.
Jerusalem Artichokes,	10 tons,	224 lbs.
Wheat,	25 bu. or 1,500 lbs.	180 lbs.
Oats,	30 " " 1,200 lbs.	132 lbs.

Com. Pat. Report.

BOLTED AND UNBOLTED FLOUR, GRAIN &c.

The following, which we find prepared to our hand, we copy from the Report of the Commissioner of Patents; it will be found interesting to all inquiring readers:

"With respect to the fat-forming principle, it appears by the Analysis of Professor Johnston, the proportion of the different parts of the grain of wheat stand thus:

1,000 lbs. of whole grain contains	28 lbs.
" " fine flour,	20 "
" " bran,	60 "

The bran is, therefore, much the richest in this principle, and the whole grain ground together is nearly one-half richer than the fine flour.

"As to the muscular matter, it is stated that

In 1,000 lbs. of whole grain, there is	156 lbs.
" " fine flour,	136 "

Respecting the bone and saline material,

In 1,000 lbs. the bran contains	700 lbs.
" the whole meal,	170 "
" fine flour,	60 "

In this respect, therefore, the bran is vastly superior, and the whole meal has nearly three times as much nutriment as the fine flour.

Taking the whole three substances together, according to Professor Johnston, of a thousand pounds, the three substances contain, of the ingredients mentioned:

	Whole Meal.	Fine Flour.
Of muscular matter,	156 lbs.	130 lbs.
Of bone material,	170 "	60 "
Of fat,	28 "	20 "
	354 lbs.	210 lbs.

And so, in this respect, the whole meal is one-half more nutritious than fine flour."

From the above statement it will strike the intelligent agriculturist as especially proper, that young and growing cattle should have bran mixed occasionally in their food, in order that the material for the formation of bone may be supplied them.

MULTICOLE RYE.—We have received a letter from Mr. F. C. Clopper, of Montgomery county, Md. in reply to questions propounded by us relative to its yield, character, &c., which, owing to the pre-occupation of our pages, we cannot now give, but shall do so in our next number. Mr. C. has none for sale, but probably will have next year. He enclosed us a few grains of the rye; it looks very like the common rye in color, but is somewhat smaller grained.

HORTICULTURAL.

WORK IN THE GARDEN.

True to our purpose of infusing a spirit of gardening into the minds of agriculturists, as well as a source of profit and comfort, as for the interest which it is calculated to infuse in all who engage in its beautiful occupation, we propose to call attention to such duties as should be attended to in this department of rural industry during this month.—And ere we commence the enumeration of the things to be attended to, we will premise, that the earlier in the month the designated work may be gotten through with the greater will be the chance of success, as at this season of the year only a few days delay makes a very material difference.

Sowing Cabbage Seed.—In order that you may secure a supply of early cabbages next summer for your family, we would advise you to prepare a border and sow cabbage seed as early within the first ten days of this month as you can. Manure it well within with well rotted manure, then dig it in a spade deep and pulverize it well by thorough raking. Your border being prepared divide it into compartments and sow in each, separately, the following varieties of cabbage seed, viz: *Knight's Early Dwarf*, *Early York*, *Early Large York*, *Early Battersea*, *Early Nonpareil*, and *Early Vanak*. These will give you a continuous supply throughout the summer of the best varieties. Two or three ounces of seed will produce plants enough to furnish fine rich luscious heads of cabbage for a large family. In five or six weeks these plants will be fit to be transplanted, when you must prepare a bed for them, by manuring, spading, taking, and laying off ridges. To do the latter, you must stretch your line east and west across the bed, and form ridges some 4 or 5 inches high, 2 feet apart. On the north side of these ridges, about half way down, insert your plants 6 inches apart. Just before frost comes lay unrotted manure along the ridges close up to the plants; let them remain undisturbed until spring; and when the frost is out of the ground, thin, cut down the ridges, and hoe up the cabbages, so as to cover the manure, and continue to work them as occasion may require. As the cabbages grow large enough, cut them out for greens, so as to let them stand 18 inches or 2 feet apart in the rows. By this means, your family will be secured not only in a full supply of early collards, but of headed cabbages, also, during both summer and spring. A bed 20 by 40 feet planted thus, will hold 1600 plants, and after the collards may be cut out, will leave at 18 inches apart 533 plants, or at 2 feet apart, 400 to head into cabbages.

Should the plants when they come up, be attacked by the fly, you may get rid of that insect, by making the following decoction, and watering them a few mornings in succession—put half a bushel of fresh horse dung into a barrel, fill up with rain or spring

water, then tie up half a gallon of soot and 2 ounces of flour of sulphur in a bag, place the bag in a vessel, and pour over it a gallon of boiling water, let it remain until cold, then pour it into the barrel with the horse dung tea, and mix the whole together. Water with this mixture as above directed, and you will not only give the fly a distaste for the plants, but you will encourage their growth so as to force them for planting-out much earlier than they would if the solution were not applied. We make this recommendation, because we know from experience that it is effectual.

Brussels Sprouts.—If you wish to ensure to your family a supply of excellent and early sprouts for use next spring, select a dry loamy bed in your garden, manure it liberally, then dig in the manure and rake the bed fine as the spading is being done.—Your bed completed, sow thereon, about the thickness of turnip seed, some Brussels Sprouts seed, rake it in lightly, then sow thereon sufficient ashes to give it a light covering, then pat the bed with the back of your spade, and your work will have been completed,—and you may rest assured, next spring, of being able to furnish your table daily, for many weeks, with one of the most delicious sprouts, cabbage, perhaps excepted, that grows.

Spinach.—If you have not already done so, thin out, so as to stand about 4 inches apart, your advancing spinach plants, taking care at the same time to relieve them of all weeds and grass.

To provide for a spring supply you must the first week or ten days of this month, prepare a bed and sow some more seed. Select for your bed a deep rich loam that lies dry, manure it freely, dig the manure in neatly, and rake as the spading goes on. The bed being prepared, stretch a line across it, north and south, trace drills $\frac{1}{2}$ an inch deep and 1 foot apart, drill in the seed thinly and cover with your rake, pressing down the earth with the back of it as you progress. Next spring, when the frost is out of the ground, thin out the plants so as to stand about 8 inches apart, and give them a slight hoeing. Repeat the working as needed, and you will succeed in raising a supply of one of the most delicate and palatable vegetables grown, as well as most healthy. It would be better that you lay straw between the rows as soon as the hard weather sets in, which must be removed in the spring when you work the spinach. The best kind to sow at this season is the *Prickly Seeded* or winter Spinach.

Lettuce.—If you have plants ready set them out,—and to secure a stock for winter use, prepare a warm border with a southern exposure, and sow seed of the *Brown Dutch*, *Lazy* or *Large White Head*, or *Hammersmith* varieties. These are hardy and will withstand the winter's frosts.

Radishes.—During the first week of this month sow seeds of the *Early Short Top* (Scarlet), *Black Spanish*, *White* and *Red Turnip Rooted*, *White Spanish*, and *Salmon* varieties.

Celery.—Earth up your celery as it advances for blanching.

Small Salading of all kinds should now be sown on warm borders for winter use.

Cauliflowers.—Any time between the 20th and last of the month is the proper period for sowing Cauliflower seed, to be transplanted into frames.

Gathering Seeds.—Be careful as your garden seeds ripen to have them gathered and carefully put away, after being cleaned and dried. Be sure to label them so that you may make no mistakes when planting time arrives. A little care now may save you from much vexation hereafter.

Herbs.—Any time after the 20th of this month you may with perfect safety set out any of the perennial, pot, aromatic, and medicinal herbs. If dry weather occurs water them and they will be sure to take root and thrive. In setting them out avail yourself of moist or wet weather.

Strawberries.—If you have not already a bed of strawberries in your garden, seize the occasion of the first rainy spell to set out a bed. The strawberry delights most in a *strong loamy soil*,—the ground should be generously manured with well-rotted manure, and to ensure fine large fruit we would advise that at least 4 inches in depth of manure be spread on the surface to be dug in a spade deep, that after raking, another dressing of manure be given to the bed, to be dug in 4 inches deep, rake finely, then lay off the bed into 4 feet divisions with alleys 2 feet wide between each, then stretch a line 1 foot from the edge and set the strawberry plants 1 foot apart—this will give you three rows to each 4 foot bed.—The plants in, place long straw or tanner's bark between the rows, and water in dry weather until the plants begin to grow. After the plants are set out sow over the bed a mixture of 2 parts lime, 2 parts ashes, and 1 part salt. In early spring give the bed a thorough watering with horse-dung tea, and you will be sure to have fine, large luscious strawberries, provided, while the berries are forming, you water them freely, twice a week.

Budding.—Peaches, nectarines and apples may be budded or inoculated any time between the 1st and 15th of this month. Plants which have been budded three or four weeks should now have their bandages untied.

Gooseberries and Currants.—Cuttings of these may be transplanted towards the last of the month. Water in dry weather.

Evergreens, as pines, firs, &c. may be trimmed any time this month, or transplanted after the 25th.

BUTTER DAIRIES.

The following statement of Mr. B. A. Hall, of New Lebanon, N. Y., was made to B. P. Johnson, Esq. of the New York State Agricultural Society, and submitted to the committee on Butter Dairies, who unanimously recommended the first premium of \$50 to be awarded to Mr. H., and his statements to

be published in the Annual Transactions of the Society.

B. P. JOHNSON, Esq. Sir:—In making a statement respecting my dairy, and farming operations connected with it, I will glance at the causes that contributed to lessen the number of pounds produced. They consist in the small quantity of snow that lay upon the earth during the last severe winter, and the late backward spring of 1847. Sward of meadows, of pastures being constantly exposed to such intense frost, and thin coats of ice, they have produced much less than an average quantity of herbage. The consequence of which is, so far as I am informed, much diminished quantities of butter and cheese. In the operations of butter making, the season past, I have made some experiments, to ascertain the exact degree of temperature, necessary to produce the very best butter. Previous to trying the experiments, I became satisfied that one great cause of bad butter, was the high degree of temperature, at which cream was frequently kept and churned. I applied the thermometer, and churned the cream at different degrees, varying from 55° to 66°, and found I invariably obtained the best butter when the temperature was below 60°, say 58°. The great anxiety of dairymen to churn quick, is at the expense of a first rate article. Any person, at all conversant with butter making, has observed the whitish yellow color and oily appearance it will present when taken from the churn, whenever the cream has been, or is too warm when the operation of churning commences, thus forever destroying its rich flavor and keeping properties. The buttermilk cannot be expelled without working too much, which makes it sticky and oily. On the contrary, cream taken from the milk at a proper time, kept and churned at 57° or 58°, will require more time in churning, but the butter will present a high and rich color—will be firm and hard—will not stick, and will readily break when being separated. The buttermilk can be at once expelled, which should always be done before the salt is applied, so that when it is subsequently worked, which should be very little, nothing will be expelled but a little brine, slightly discolored. Another cause of bad butter is the use of impure salt, and that frequently in such large quantities, that lumps not dissolved are frequently found in it. A small quantity only should be used of pure rock salt, perfectly pulverized and incorporated with the butter. No other salt should be used but such as is perfectly pure. The Salina salt, after repeated trials, I have entirely thrown aside.

I have also tried experiments to ascertain what effects different kinds of feed had on the quality and quantity of butter produced from any given quantity of milk. From 1,500 pounds of milk, weighed when feeding green cornstalks in addition to feed obtained in the pastures, I obtained a little over one-half of one pound, from each 100 pounds of milk, more than the average produced through the season, and the butter made was of superior quality. For a description of my farm, locality, &c., I respectfully refer the committee to Transactions for 1846, page 144, which contains my statement made that year. I have used in addition to the farm there described, about 20 acres of hill pasture and 8 acres of meadow, soil gravel loam, bearing red and white clover and herds grass. An average crop of hay on my meadows, that are not ploughed, is about one and three-quarters ton per acre. My dairy has been composed the past season of 20 cows, from 4 to 13

years old; 5 three years old heifers and 4 two years old, all of native breed, except 3 short horn heifers: one of my cows became dry about the 15th of September, and I sold one cow and one heifer a little later. I think a fair average through the season would be 27 cows. I had 26 calves dropped by the 16th of April. They were all kept on the cows until the 12th of May, when they were all sent to the Boston market, when I immediately commenced making butter, and continued 224 days.

The produce of my dairy was as follows, viz:—3,736 lbs. of butter, sold in the Boston market by C. P. Adams, at an average nett price of 24½ cts., **\$1,067 13**
 29 calves, averaging 37 days old, **151 83**
 Cream and milk used in a family of 12 persons, 16 cents per day, **58 30**
 Skimmed milk and buttermilk fed to hogs, 224 days, \$1 40 per day, **316 40**

\$1,593 66
 My cows each gave on an average, as weighed and measured, 4,230 pounds of milk, which would make for the whole herd, 164,200 pounds. The quantity of butter to 100 pounds of milk, would be a fraction less than 3 pounds 5 ounces. The feed of my cows, in addition to grass and hay, was two quarts of provender (barley and oats) per day, during the time they suckled their calves, and one feeding per day of green corn or pumpkins from about the first of August to the first of November, after which they were fed on dry corn fodder.

For a particular account of my method of making butter, I will again take the liberty of referring the committee to my statement of last year, which has not been varied, except in the use of more ice, and a little lower degree of temperature, which, together with the use of green corn for feed, has improved the quality of the butter.

My sales of young pigs, which were fed on the skimmed milk and buttermilk about two months, and then sent to market, **\$0,236 65**
 Amounted to, **1,640 39**
 Pork, lard, &c.,

Nett amount of sales, **\$1,877 04**
 Amount paid for hogs, **842 00**

Amount to credit for feed, **\$1,035 04**
 I have not yet hauled out their manure, but I think I can safely estimate it at 450 loads."

A. B. HALL.

At a meeting of the Agricultural Society of St. Mary's Co., Md., it was resolved—that the Agricultural Society of that county respond to and approve the Agricultural Convention to be held in Baltimore, on the 5th September—and the President of the Society required to appoint twenty-five delegates to the said meeting, who shall represent this society there, and at any Convention that may result from the same.

The Chair then announced the following names, in obedience to the resolution:

Col. B. I. Heard, Bennet Gough, Richard Thomas, Benj. G. Harris, Col. James T. Blakistone, Col. C. Billingsley, Col. Wm. Coad, Thomas Loker, Ed. J. Plowden, Geo. D. Coad, Geo. Combs, Edward L. Spalding, Dr. Walter H. Briscoe, Col. John H. Sotherton, James C. Milburn, Francis J. Stone, Dr. Jos. F. Shaw, Henry J. Carroll, Dr. James W. Roach,

Francis Neal, Lewis C. Combs, Henry Jones, Dr. Wm. J. Edelen, Dr. Henry A. Ford, Dr. John M. Broome.

On motion of Col. B. I. Heard, Henry G. S. Key, President of the Society, was added ex officio to said delegation.

METEOROLOGICAL TABLE,

From the 20th of July to the 21st of August.

Kept at Schellman Hall, near Sykesville, Carroll county.

Taken at 6 o'clock, a. m., 2 o'clock, noon, and at 6 o'clock.

Wind.		Temperature		Remarks.
21	W SW	65	81	79 Clear
22	SW SW	74	81	77 Clear Rain at night 1 in.
23	W W SW	71	83	79 Clear
24	W W	68	79	73 Clear
25	W W	68	84	80 Clear
26	W W	73	87	78 Clear
27	SW SW	72	87	81 Fog Clear, heavy thunder gust ½ in.
28	W W	72	83	76 Clear Rain ½ in.
29	W E	71	73	79 Cloudy Rain ½ in Cloudy
30	E E	65	69	70 Cloudy
31	E SW	68	80	73 Misty Clear Shower Clear
1	W W	63	75	73 Clear
2	W W	60	76	71 Clear
3	W W	60	76	73 Clear
4	W SW	66	80	78 Clear
5	W W	71	81	78 Clear
6	W W	67	79	71 Clear
7	W W	61	78	75 Clear
8	W W	57	80	75 Clear
9	W W	61	82	78 Clear
10	E E	67	83	78 Fog Clear
11	E E	70	82	75 Fog Cloudy Rain
12	E E	72	73	73 Rain Storm 5 in.
13	SE SE	72	80	78 Cloudy Clear
14	S S	70	80	76 Fog Clear
15	S S	70	82	76 Fog Clear
16	SE SE	72	80	76 Fog Rain ½ in. Clear
17	S S	70	83	80 Fog Clear
18	W W	71	81	75 Cloudy Clear
19	NW NW	64	74	68 Clear Cloudy
20	NW NW	60	75	68 Clear

THRASHING MACHINERY, HARVEST TOOLS, &c.

THE subscribers are manufacturing an unusual large assortment of agricultural machinery for the coming harvest—all of which they warrant to be equal as regards plan of construction, durability, &c., to any similar machinery made in this country. They may be rated and priced as follows, viz:

Lever Horse Powers, 3 sizes, at 85 100 and \$150
 Endless Chain Powers, 2 sizes, at 85 and \$110
 Thrashing Machines, 4 sizes, at 35 40 50 and \$60
 Straw Separators for do. 3 sizes, at 15 18 and \$30
 Grain Cradles, made with iron and wood braces

—extra and common finish, at 4 and \$5
 Horse Hay and Grain Rakes, best quality, \$11
 Hand Rakes, Hay Forks, Scythe Stones, Sickles, Cradlers, 1
 Hammers, &c., also

Corn and Tobacco Cultivators, made with cast iron and steel tines, price 4, 5 and \$6
 Corn and Drag Harrows 5 to \$16

2 and 3 Furrow Plows—improved 5.50 and \$6.50

Fanning Mills, with separating fixtures, greatly improved 25 30 and \$35

We are also manufacturing extensively, our late improved drilling machines, which, with tests during the last season, has proved the articles to be perfect in every particular—they are fixed to drill almost every variety of grain, but particularly adapted for wheat.

In the next number of this paper we will say more in regard to this new and valuable machine.

R. SINCLAIR, Jr. & Co.

Manufacturers and Seedsmen,

62 Light-st.—Baltimore.

ju 1

HIGHLY IMPROVED HORSE-POWER.—The subscriber is prepared to furnish his improved Horse-Powers, upon the Sun and Planet principle, and such as he exhibited at the late Fair in this city. This power possesses some peculiar advantages over all other powers in use, as running lighter, being more durable, and any repairs necessary to it, can be done on the farm without going to a mechanic's shop. Those in want of a Horse Power would do well to examine this before purchasing elsewhere—price \$100. Thrashing Machines on hand for \$45 and \$55.
 J. S. EASTMAN,
 July 1 At his old stand, 180 Pratt-st.

FLORICULTURE.

WORK FOR SEPTEMBER.

Prepared for the Amer. Farmer, by Saml. Feast, Florist.

Camellias.—Continue to syringe these as before, and attend to watering at the roots.

Roses intended for winter blooming should be repotted, or if in large sized pots give a top-dressing of rich soil or manure.

Chrysanthemums should receive their last potting.

Verbenas.—Cuttings of these should be put in for spring flowering.

Stocks which were sown last month should be potted for blooming in winter and spring.

Carnation.—Layers which have taken root should be potted in light rich soil.

Geraniums may be repotted in rich loamy soil.

Dahlias.—Tie up to their stakes as they advance in growth, in order to preserve from the effects of the heavy storms so prevalent at this season of the year.

BALTIMORE MARKET, Aug. 26.

The news from Europe by the last arrivals appears to have had no effect upon our grain and produce market. **Flour.**—Howard-st. is rather firm, at \$5 offered, but not accepted; choice brands have sold at \$5.12½; City Mills, \$4.94½\$5.12; holders generally ask \$5.25 on time—**Wheat**, the supply the last week rather small, and the article being in demand, prices have improved; we quote white 100a110c.; family flour white 110a118c.; reds 100a 107c., with some demand for shipment—**Corn** is lower than at the beginning of the week; the rates are now 48a50c. for white—and 54a55; **Rye**, sales at 70a 72c.—**Oats**, sales of new crop at 30a35c.—**Molasses**, P. Rico 23½c., N. O. 30a32c.—**Pork**, Mess, \$11; bulk hams 5½, sides 4½—**Beef**, No. 1, \$11a11.50 for ship stores—**Bacon**, shoulders 4½a5½; sides 5a5½; hams 7a 9c.—**Butter**, in kegs, 10a11c.—**Lard**, sales at 8a9½c.;—**Plaster**, 2.62½a2.75 per ton; ground 1½, 12½ per bbl.; **Rice** \$4 per 100 lbs—**Sugars**, P. R. 3.50a4.50—**Whiskey**, 23½ for hhds. and 24a24½ for bhls.—**Wool**, tub washed common 22a23—**Cattle**, last sales, \$2.75a3.25 per 100 lbs. on the hoof, equal to \$5.50a6.25 net, average \$3 gross—**Hogs**, \$5a5.50, scarce—**Coffee**, Rio, 6½a6½; Laguayra green 6a6½; **Cotton**, sales of Texas mid. at 7c.; N. O. 7 7-8—**Upland**, good middling, 7½; mid. fair 7½, all on 6 months credit—**Feathers**, 30a34—**Fish**, herrings, No. 1, 44a4.25—no shad in market; No. 3 mackerel, 44a4.25—**Tobacco**, demand good, and all the better qualities of the new inspection taken readily at quotations; for lower grades holders submit to a concession in prices—Some shipments are going forward to Holland, but the existing difficulties between Germany and Denmark prevent any large operations for that market. Ohio Tobacco is dull. We note a sale of a few hhds. colory at \$7a\$11, and of a single bhd. of fine yellow as high as \$17. This, however, is not to be considered as a criterion of the market. We continue our former quotations, viz: Inferior and common Maryland \$2a\$3; sound common \$3a\$3.50; good \$6; and fine \$7a12. We quote common Ohio 3a3.50; good \$4.50a\$6; fine red and wrappery \$6.50a\$9; fine yellow \$9a11; and extra wrappery, \$10a12.

LATEST FROM EUROPE.

After our paper was put to press the steamer Britannia was announced as having arrived at Boston.—We extract the following as the amount of her commercial intelligence. Transactions in regard to

produce in this country are suspended until more positive advices are received by private correspondence: **THE MARKETS.**

The following additional commercial intelligence is from Brown & Shipley's Commercial Circular:

Some grounds of uneasiness exist as to the result of the harvest as well as the potato crop. The weather is variable and unfavorable.

The continued war between the Danes and the Prussians, affects trade injuriously. Cotton is heavy and languid. Prices in favor of buyers, particularly fair qualities. Quotations are reduced 1-8d. as follows:—Fair Upland 5 1-8d., Orleans 4 3-4d., other grades are unchanged, but former prices cannot be obtained for large quantities.

The sales of Cotton for the week amount to 30,000 bales.

Corn has declined 26s. to 31s. on account of the market being glutted with potatoes. Indian meal is held at 15s. per barrel.

The Flour market is dull and unchanged. Wheat is firmer at 8s. 6d. per 70 lbs.

The Provision market is moderate and steady.—Lard active and unchanged.

Money is plentiful, and the Stock market tolerably steady.

FOR SALE.—THE Minor and Horton PLOWS of every size, with all their extra Castings.—Also, Wiley and all other PLOWS and CASTINGS, all of the Northern manufacture and materials. We also keep one of the best land Corn Shellers in this market, which we will warrant to all who purchase. We have a lot of large size 2 and 3 horse Plows of the Wiley and Minor & Horton, which we wish to get off and will sell them very Cheap, at W. GAWTHROP & SON'S, mh 1 1848. No. 71 Bowly's wharf, Baltimore.

LIME.—The subscriber is prepared to furnish from his depot at the City Block, Baltimore, ALUM STONE LIME of the purest description, deliverable at any point on the Chesapeake Bay or its tributaries, at such prices as cannot fail to please.

He is also prepared to furnish superior building Lime at 25c. per bushel, in hhds., or at \$1 per bbl. E. J. COOPER, July 1 City Block, Baltimore.

RAVENWOOD, Accomac, Va., Aug. 4th, 1847.

M. R. E. WHITMAN, JR.—During my late harvest, I have fully tested the merits and capacity of your Two Horse Rail way Power and Thresher. As a labor saving machine, performing its work in the most perfect manner, it is invaluable to the farmer. In every particular it has answered my most sanguine expectations—I would not be without it for four times its cost. Indeed, I consider it has already paid for itself; for, without its aid, I could not possibly have availed myself of the high price at which I disposed of my crop. During its operation, it was visited by several of the best and most intelligent farmers in the county, who were delighted with its work. With two small mules (entirely too light) and five men and a girl to attend the machine, I threshed four hundred bushels of oats in five hours and twenty minutes, with perfect ease, and without hurrying at all—that was the longest time I operated with it any one day. I have threshed, cleaned, and housed my grain sooner than I have ever been able heretofore to stack it; and without any extra labor. Your Horse Power will be generally adopted in this county—indeed, I may say, that the best lever-power could not be sold here at one-fourth its cost. I am much pleased with the Straw Cutter you sent,—the small, it answers every purpose.

I am yours, with great respect,
WM. H. B. CUSTIS.

We have taken the liberty to publish the above letter for the benefit of Virginia farmers, as the high standing of the author will doubtless satisfy any reasonable mind of the great superiority of my threshing machine over all others.

We are the only person, south of New York, that manufactures and sells this machine.

Price of one-horse power \$75, Thresher \$45, Band \$6 — \$126
Two-horse power, \$100, Thresher \$50, Band \$8 — \$158

We have also a Sweep Power, which we will warrant to do more work than any other sweep power that is made—stronger and more durable.

Farmers will also please bear in mind, that we manufacture and sell the machines that thrash and clean the wheat at the same operation.

E. WHITMAN, Jr.
je 1 Corner of Pratt & Light-st.—Baltimore.

THE SUBSCRIBER takes pleasure in returning thanks to the many gentlemen who have favoured him with their **MILL-WORK**; also to the farmers and planters for their liberal support in the Machine line, and would respectfully inform them, that his endeavors to please will continue unremitting. He is prepared at all times to build any of the following kinds of **MILLS**: Overshot, Pitch Back, Breast, Undershot, Rectifying, Steam, Wind, Tide, Horse-power, or Tread Mills; and having the best of workmen employed at pattern and machine making, he can at all times furnish the best articles at the lowest prices, such as Horsepowers, Pettigrew Shellers, Murray's Shellers, 4 kinds hand and power Shellers, portable Mills adapted to any power, Corn and Cob grinders, Straw, Hay and Fodder Cutters, Carry-log and Mill Screws; also manufactures Hoisting Machines, Hoisting Cranes, Pile Drivers, Turning Lathes and Steam Engines; and any kind of Machine Model or Mill-work built to order. Any kind of Cuttings and Smith-work at the lowest prices. I warrant all Mills planned and erected by me to operate well.

JAS. MURRAY,
Millwright, York near Light St. Baltimore.

Also for sale, Jas. Murray's patent separating Shellers, which shell and put the corn in perfect order at the same time, for the mill or for shipping—Persons living near the city can bring with them one or two barrels of corn, and give the shellers a fair trial before purchasing.

He has also for sale, the following second hand Machinery: 2 pair 4 ft 6 in. French burr Mill-stones, with all the gearing; 1 pair 3 ft 6 in. French Burr Millstones, with all the gearing; and some Saw Mill work—the whole are good, and any or all of the above will be sold low.

HALIFAX, N. C., August 25th, '47.

Mr. JAS. MURRAY,—Dear Sir:—This is to certify that I have used your fans during the last spring and summer, and feel no hesitation in saying they are the best by far, I ever saw, I fanned with one fan, one thousand barrels of corn in one day, and in one day fanned one thousand bushels of wheat, as it came from the thrasher. They will do as much as any two I ever had, in the same time.

Yours, &c.

W. B. HATHAWAY.

TO THE MECHANICS, MANUFACTURERS, ARTISTS AND OTHERS IN THE UNITED STATES—The Board of Managers of the *Maryland Institute for the promotion of the Mechanic Arts*, recently established in the city of Baltimore, respectfully announce that they intend holding their first **FAIR** for the exhibition of improved Machinery, Agricultural Implements, &c. in the month of October next.

Further particulars will be given in future advertisements, and circulars will be forwarded to persons engaged in manufactures and the arts.

J. K. STAPLETON,
GEO. J. ROCHE,
EDWARD NEEDLES, } Com. on Fairs.
ROSS WINANS,
B. S. BENSON,
ADAM DENMEAD, Chairman.

SAM'L. FANDS, Sec'y.

Ap. 1

PLOUGHS! PLOUGHS!!

The subscriber is manufacturing Ploughs of various patterns and of different sizes; also Wheat Fans, Cylindrical Straw Cutters, Corn and Tobacco Cultivators, CORN SHELLERS, &c. Also,



THRESHING MACHINES AND HORSE POWERS—these latter are used by the following gentlemen, to whom reference is made, as to their superior value, viz. Messrs. T. Beard, Th. Beard, Dr. Watkins, J. T. Hodges, T. Welsh, W. McKall, J. Ighehart, A. Sellman, K. Sellman, W. Hopkins, J. Kent, Geo. Wells, Geo. Gae, Dr. Fenwick, Franklin, J. C. Veans, of Anne Arundel county; G. W. Weems, J. T. Barber, R. B. Chew, W. Boswell, Y. Howes, of Calverton, Md. Agt—Agent of Evans Davis, Baltimore co. for sale of the Woodcock Plow. Pennsylvania Grain Cradles. CHAS. H. DRURY, Gillingham alley, entrance from Howard st. near Pratt, and store, Hollingsworth st. corner Pratt.

TWO FARMERS.—The subscriber has on hand three good, strong 4 Horse Powers, which he will sell at \$50 each; also a variety of **PLOUGHES**, small and large, of good pattern and well made, that he will sell below first cost. Likewise, superior **THRESHING MACHINES**, and various other Farming Implements, equally cheap. Plough Castings on hand at retail.

July 1

In the rear of 180 W. Pratt street.

LIME.

THE SUBSCRIBERS are prepared to furnish Building and Agriculture Lime at the depot on the Back Basin, corner of Eden & Lancaster streets, which they will warrant to give satisfaction, it being burnt from pure Alum Lime Stone, equal to any found in the United States. Orders may be left with William Robinson, No. 15 Hollingsworth st. near Pratt.

FALL & ROBINSON, City Block.

AGRICULTURAL IMPLEMENTS FOR SALE.

Horse Powers.—Taplin's & Eddy's Circular Horse Powers, Price \$75; Wheeler's & Whitman's Endless Chain do, single Horse, \$75; Double Horse, \$100; Trimble's, Warren's & Child's Cast Iron, ditto, \$50 to \$75.

Grain Threshers.—Wheeler's Thresher at \$35, ditto with Separator, \$35; Taplin's & Eddy's Thresher, \$40; Trimble's & Warren's ditto, \$25; Whitman & Pitt's Thresher, with Separator and Cleaner, for one or two horses, \$100. Pitt's Thresher, Separator, Cleaner, and Horse Power complete, \$200.

Corn Shellers.—Corn Shellers to work by hand or other power. Price \$3 to \$50.

Straw Cutters.—Straw Cutters of various kinds to work by hand or other power. Price from \$3 to \$40.

Grain Mills.—Grain Mills to work by hand or other power. Price from \$5 to \$50. Ditto of Burr Stone, from \$5 to \$125.

Corn and Cob Crushers.—These grind corn and cobs together. Price 35 to \$50.

Spice and Coffee Mills.—Several of these are of a new and superior kind. Price from 2 to \$10.

Plows for the South and North.—Superior Plows of various kinds for sod and stubble land, from one-horse to six-horse draft. Also, the Scotch Iron, Centre Draft, Self-sharpening, Side Hill, Wet Meadow, Double Mould Board, Faring and Subsoil Plows, with common or patent dial clevis. Price from 2 to \$20. The woods of the above plows are of choice white oak, and got out by patent machinery; the castings are of the best kind.

Also, a complete assortment of all kinds of Agricultural and Horticultural Implements, Field and Garden Seeds.

A. B. ALLEN & CO.,

189 and 191 Water street, New York.

THE "Simon pure," and invincible **WILEY FLOW** still in the field—A. G. MOTT, at No. 38 ENSOR STREET, near the *Bel-Air Market*—Manufacturer and Vendor of Implements of Husbandry, viz. Plows, Harrows, Cultivators, Grain-Cradles, Wheat-Fans, Corn-Shellers, Straw-Cutters, Endless chain Horse Powers, Threshing Machines, &c. &c.—through this medium, would apprise the agricultural community of the fact, that he is the only manufacturer in the "Monumental city" of the **GENUINE WILEY FLOW** (right and left hand) composed of the real "simon pure" and justly celebrated New York composition, chilled castings, the points of which, are warranted to stand the most rugged soil equal to steel, at a cost of about two cents per acre, for blacksmith's bill. If you are for bargains, call, or send your orders, for he guarantees his implements good as the best, and cheap as the cheapest, for cash, and delivered in any part of the town free of charge.

FENCING—FENCING.—The undersigned is now prepared to furnish the entire apparatus, or any part of the machinery for the manufacture of the new, beautiful, and highly economical kind of **FENCING**, advertised in the last August No. of this Journal, to such as desire, together with the Patent Right for any of the counties of this State, except that of Frederick, Montgomery, Carroll, Baltimore, and Prince George's—also for the entire territory of Virginia, or any part of it—likewise for any part of the territory of Pennsylvania unsold. For particulars, description, &c. see the *American Farmer*, No. 2, for 1847.

C. COLEMAN.

Mt. Pleasant, Frederick county, Md., June, 1848.

July 1

SUPERIOR GUANO FOR SALE.

JUST received and for sale, in lots to suit purchasers, a cargo of **GUANO**, of superior quality. Price \$35 per ton, for half a ton or more; less than half a ton, 2 cts. per lb. Apply at the New York Agricultural Warehouse and Seed Store, Nos. 189 and 191 Water street, New York.

al 2t

A. B. ALLEN & CO.

BONE-DUST AND POUDETTE.

THE SUBSCRIBERS are prepared to furnish the above named articles of manure, at the shortest notice, at their manufactory on Harris' Creek, Canton, near the Eastern limits of the city. Orders may be left at S. SANDS, Publisher of the *American Farmer*, No. 2 Jarvis' Building, North-st., Baltimore.

HOSKINS & BAYNES.

ORANGE SEED.—We have received a few gallons of this seed for sale, at \$3 per quart. Those wishing to raise this shrub for hedges, should obtain the seed this summer or fall.

July 1

S. SANDS, Office of the Farmer.

2 Jarvis building, North-st.

IMPROVED STOCK.

A FULL-BRED DURHAM SHORT-HORN BULL, seven years old; and a few high-bred Southdown ram **LAMBS**, for sale.

July 25, 1848.

SAMUEL HAMBLETON,

Near St. Michaels, Md.

FENCING! FENCING!!—The Farmer, the Gardener, and indeed the Cultivist of whatever name, need no elaborate argument to prove that to protect and secure the products of his toils, by substantial and durable fencing, is second only to his concern in the culture and growth of his crops—or that it is of no less importance in the matter of expense. The attention of the public is invited to a newly invented variety of fencing, which for cheapness, durability, and convenience, is preferable to any fence hitherto used—this fencing is designed and equally applicable for an ornamental enclosure for dwellings, lawns, &c., as for separating and enclosing fields upon a farm. Among the advantages which it proposes, the following are some that might be named: It requires less material; occupies less space upon the ground; is less liable to get out of repair; is more durable than fences in common use. It affords certain protection against all kinds of cattle, sheep, &c.—it combines lightness with strength, it makes very little shade, thus affording light and heat for vegetation; it is portable, and is capable of being transformed at pleasure, to suit any shaped lot, it affords gates at any point and of any size; it can be manufactured from any kind of lumber or such as cannot be split into rails, it is a sure protection for gardens and fields from fowls, dogs, &c.—being too high and pointed to be jumped and too close to admit a passage through—it being light can easily and readily be removed from place to place and set up without injury. It being open is not thrown down or affected by high winds. In short it is found to be a highly valuable and convenient fence—it is manufactured with great rapidity and facility by very simple machinery worked by water, steam or horse power. The undersigned having purchased the Patent Right for the State of Maryland, and being desirous that the advantages of this invention should be extensively diffused throughout the State, will sell Rights for the various counties, (except Frederick, Carroll and Montgomery, these being sold) on very favorable terms, and furnish machinery to those who will purchase and put this valuable invention into actual operation.—The machinery can now be seen in operation, either at the Triadelphia Factory, Montgomery county, at the farm of Col. Jas. C. Atlee, New Windsor, Carroll county, or at the farm of the subscriber, Mount Pleasant, Frederick county, as also ample specimens of the fencing itself. For any further inquiry, addressed (post paid) will receive attention.

sep 1

CHESTER COLEMAN.

THE WESTERN CONTINENT,

A SOUTHERN FAMILY NEWSPAPER, (New Series,) H. M. GARLAND, Jr. and JOHN DONALDSON, Editors and Proprietors. The First Number issued Saturday, July 8, 1848.

The Western Continent will be conducted upon a plan different from that of any Journal South of New York. It will be exclusively devoted to Literature and General Intelligence, preserving a strict neutrality upon all political and sectarian questions. It will be mainly devoted to the re-printing, from the best foreign magazines, of such articles as may be of great merit. The periodical literature of Europe is abundant and valuable; sustained as it is at great expense and by the aid of the chief writers of the day. The republication, at a cheap rate, of those articles which could not otherwise be read, except at the expense of importing several costly magazines and journals, cannot but be acceptable to the public.

The Western Continent will contain original contributions, besides the editorial notices and criticisms which will always make a part of its contents. The editors have made arrangements which will, they trust, always ensure so much original matter as should entitle their journal to support. They will, moreover, carefully attend to the News Department of their paper. Foreign and domestic intelligence—political, literary and scientific—drawn from the most authentic sources, will be always found in their journal. One of the editors of the paper will devote his exclusive attention to those selections which are designed, in a great part, to contribute to its interest. The editors of the Western Continent appeal to their Southern friends for support in this undertaking. Although, in the opinion that no interest could be subserved by devoting its columns to political discussion, they have determined to keep the journal aloof from such topics; yet, nevertheless, as citizens and natives of a Southern State, seeking to establish a Family Newspaper, they feel justified in relying for support upon the kindred feelings and common sympathies of the people of the South.

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May 1

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CONTENTS OF THE SEPTEMBER NO.

Work on the Farm	65	Notice—of the Fall Exhibition of the P. G. Co. Agr. Soc.; of the Pa. Cultivator; of the Ettrurian Wheat; of Mr. Reybold's sheep, &c.	82
Transactions N. Y. State Agr. Society	68	Experiments with Guano	83
Prof. Johnston on preparing bones	68	Notices of the Farmer	83
Fine Fruits for cultivation	70	Advantages of draining wet clay lands	83
T. S. Sumner, of S. C. on Rotation, &c.	70	Doings of Agr. Clubs	83
An E. S. Man on steeping seed grain	72	Report of the Kent Co. Agr. Society	84
A Valley of Virginia Farmer's visit to Col. Capron	73	Report of Farms in Montgomery Co.	84
Z. on lands of Eastern Va.	74	Large Unions, raised by Mr. Garland	86
C. Berkeley and the Monument Wheat	75	How to preserve peaches	86
W. J. Dupuy on lime and ashes	75	California Grasses and Clover	86
T. R. Stewart, of Caroline County—the Potato Rot	76	Patent Churns	86
Fairs—of the American Institute; N. Y. State Agr. Soc.; Franklin Institute; Md. Institute; Montgomery Co. Agr. Soc.; Charles Co. Society	76 77 78 82 83	To prevent the attack of the Rose Bug	86
Delegates to the Agricultural Convention	77	On the Culture of the Peach 87	
Md. Cattle Show and Fair	78	The Osage Orange for live fences	87 88
Circular from Patent Office	78	Cultivation of Tobacco in Virginia	88
Inorganic Elements of Nutrition	79	Bayne's and Hovey's Strawberries	89
Notices—of the meeting of the Md. Far's Club; of the Agr. Convention; of the Prize Essays	80	Pent and Wood Ashes for Fruit Trees	89
Letters from Judges Chambers and Dorsey; General Richardson, and Hon. Willoughby Newton, of Va.; Dr. Thompson, of Del. and Dr. Darlington, of Penn.	80 81 82	Proper depth of planting wheat	90
		Raw and cooked food compared	90
		Value of certain kinds of food	90
		Bolted and unbolted flour and grain	90
		Work in the Garden	91
		Butter Daries	92
		Metereological Table	93
		Floriculture, Markets, &c.	94